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Linguistics in Postmodern Science Fiction: Delany's *Babel 17* and Stephenson's *Snow Crash*

Ilgu Kim
(Hannam University)

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As the late partner to science fiction, various experimental languages such as animal language, telepathic language, newly invented language, alien language often appear as "unexpected and frightened situations" in SF. Like generative semanticists, some SF writers daringly delve into the sacred mystery of semantics in language whereas others avoid the dream of a universal language by holding themselves to manageable data. Samuel Delany's description of the ideal telepathic universal language in *Babel 17* shows us humans' dream to be like God by showing to us the new process of communication in the factual interplanetary environment. Similar to the mystery of alien language in SF, the baby's babbling reveals how language is both simple and complicated. Children's language shows us the changing process of a soul revealed by language use and it is no wonder that many languages of AIs in SF often borrow their source from children's language acquisition processes. In short, science fiction as the repository of tropes illuminates other literary language studies and other literary genres. Especially in terms of the futuristic study of linguistics, the relationship between science fiction and linguistics is much closer than we thought.

[linguistics/science fiction/Delany/Stephenson/children's language]

I. INTRODUCTION

As Myra Edwards Barnes notes in *Linguistics and Languages in Science Fiction-Fantasy* (1971), linguistics is a late comer to science fiction (175). And it is generally said that like other hard or physical sciences such as physics, meteorology, astrology, or chemistry, linguistics is often not so professionally

treated in SF(Science Fiction). Although some SF writers such as Samuel Delany or Joanna Russ display specific linguistic knowledge, "the knowledge about language change" that SF writers usually show us is, as Walter E. Meyer says in *Aliens and Linguistics* (1980), indeed "a paltry amount" (37). What Meyer rather expects from SF writers' language use is rather "the sane and tolerant responses to the most unexpected and frightened situations":

> The pioneers of the American pulps saw science fiction as a means of teaching science. Although science fiction seldom achieves that goal, and although we have no right to demand anything more than art from its writers, the possibility is always there. And the possibility includes the chance to say something about language, something liberating and tolerant and entertaining. (209)

Considering that animal language, telepathic language, newly invented language, alien language, or other use of linguistic theory often appear as "unexpected and frightened situations" in SF, the relationship between science fiction and linguistics, especially in terms of the futuristic study of linguistics, is closer than we thought. Above all, the "sane and tolerant responses" found in SF are experimental and inspiring enough to make SF instruction book for language study. If so, how about the influence of linguistics upon science fiction?

Literary stylists often argue that the solution of delicate language usage is rather found in literature instead of in linguistics itself simply because it is through contextual interactions of language and reality that literature offers a deeper insight into the human being. According to Jonathan Culler, literature becomes a tantalizing enterprise of semiological study because literary works are continually violating codes. Namely, literature rests on other systems, particularly that of language, and thus becomes "a second order system" which consistently focuses on "the necessity of creative interpretation" and "a network of differences." Because meaning emerges from the interpersonal system ('Otherness of meaning'), the violation of conventional codes in literature requires hard interpreting work for us to extend ourselves and to discover new resources in the self.[1)] As the relational values became the primary constituents

[1)] In a society where machine regularity and conformity become more important than creativity and individuality, man's relative insignificance can be overcome by violating traditional codes. I think that SF violates traditional codes, leading us to think about alternative futures. Science fiction as the

of the work of Modernist art, the language of AI in science fiction reflects this linguistic move from object to structure or to systems of relation.

In fact, more than other SF topics, Artificial Intelligence in science fiction is the result of modern linguistic theories of which generative phonetics, information theory and mechanical translations take a great part. Although recent AI technology is said to reach only a four-year-old-level intelligence in its autonomous level, the expert system in specific intelligence development already substitutes well-educated human experts with intelligent machines. For example, the rapid advancement of mechanical translation, as in the case of 'the E-translator' recently developed for interpreting English into Korean, already reached a very high percent accuracy. Considering its speed and quantity of translation within limited time, the E-translator machine will take the place of a professional translator in a little while. If the target language is structurally similar to the original language such as the translation of Japanese into Korean, or the translation of French into English, it is not an exaggeration to say that the AI machines are already established experts in terms of the specific area of multi-language use.

This kind of new linguistic development plays an important role in structuring new modes of perception in SF (which is always ahead of present science) such as AI machines with emotions. For common people, the fragmented discourses (especially in television's mixed news of various flickering cut-up data) and MUD (Multi-User-Domain) type role-playing in the internet provide a new, distinct and heterogeneous vision about humans and machines. As Scott Bukatman notes, the terminal identity "situates the human and the technology as coexistive, codependent, and mutually defining" (22). Similarly, J. David Bolter in *Turing's Man* writes, "a defining technology defines or redefines man's role in relation to nature" (13). In other words, the computer as the defining technology in the electronic age, by promising (or threatening) to replace man, is giving us a

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repository of tropes illuminates other literary language studies and other literary genres. To marginalize this genre in the academia would be a great loss for the information-filled society. As the generative semanticists and generative syntacticists struggles show, it is hard to expect that there is a single model for language theories and a single version of truth. In this process of creating dynamic interactions between meaning and reality, we must open to ourselves to various ways of comprehending all possible experiences.

new definition of man as an "information processor," and of nature, as "information to be processed."[2)]

Also, Bolter says in *Writing Space* that "writing itself is not merely influenced by technology, but rather is technology," and our ways of thinking in written language are now becoming the programmable process (239). As "an ideal writing space for our networked society," a computer permits every form of reading and writing (as the projection of mind in culture) from the most passive to the most active (238). The multifaceted mode of expression created by interrelated *lexia* (or blocks of text) encourages interdisciplinary study and continuity between fields. As a medium of communication as well as a scientific tool, the computer now brings a process of cross-fertilization and bridges the gap between humanism and science through its rich blending of the artificial and natural language.[3)]

In the world where complexity is increased by social organization and by technological activity, people feel that interpretations of meanings are more bewildering and confused. It is no wonder that aspiring to the perfect artificial language is common in many SF settings. In fact, our natural language is full of defects, if we look carefully.[4)] Although natural language gives us some stable understandings about rapid changes in the world through new classifications or categories (El NIÑO, posthuman, 24 black holes, hypertext, etc.,) theories offered by language are not always satisfying because language itself as a tool is in essence defective.

[2)] Descartes is often regarded as the forefather of these mechanistic thoughts and computer developments: "whatever the shortcomings of his [Cartesian] dichotomy, as a heuristic device it proved of paramount importance in providing a schematic framework for the automata makers of the eighteenth century and for the computer algebra of the great Boole in the nineteenth century" (Cohen 79).

[3)] In "Signs, Symbols and Discourses: A New Direction for Computer-aided Literature Studies," Mark Olsen urges the necessity of new literary models suitable to computer technology: "The traditional notions of textual analysis are not well suited to computer development. Thus, a reorientation of theoretical models underlying computer-assisted textual research will exploit the strengths of current computer technology and provide an important corrective to the traditional concept of reading texts, opening a central role for compute analysis in many areas of textual research". (source: http://www.cudenver.edu/~mryder/itc_data/ semiotics.html)

[4)] For feminists in interaction with science, the new artificial language (as with the female tongue "Laadan" in Suzette Haden Elgin's *Native Tongue*) functions as an indispensable weapon which can free society partly from patriarchy. It is said that over the course of a lifetime, repetition of the prescriptive "he" exceeds 1,000,000 in the experience of educated Americans. This is only an example of the language bias against women.

Even if defined by scientific criteria, the systems of nature are often interpreted in social contexts. Thus, seemingly objective concepts such as color and number have different connotations accorded them by each culture. Thus, red, the general warning sign in Western culture is rather a good omen to most Asians and the lucky number seven in the West is infrequently preferred to the number nine in the East. Languages change over a specific time and it is now very hard for moderns to guess that the contemporary word "women" came from the Old English word "warrior." Also, because most languages have limited written signs, it is not possible to match a sound with a corresponding letter particularly in English: /k/ can be pronounced by various ways of spelling such as *c* (as in *cat*), *k* (in *kit*), *q* (in *quite*). About this, Bernard Shaw once humorously said that *ghoti* can be a spelling for *fish* in American English: (*gh* as /f/ sound in tough, *o* as /i/ sound in women, *ti* as /sh/ in initiate).

Beyond all these vulnerable characteristics of human language, what makes language a tool not enough to be trustworthy for communication is that human language is so symbolic a signifier that it lacks correspondence with the objects or ideas it signifies. This arbitrariness between language and reality was, as Ferdinand de Saussure showed, the great watershed to modern thoughts. For Saussure, *parole* refers to only a particular utterance within the system of differentiations while it is the *langue* (the entire system of a language, its rule of combination and its system of differentiations) that makes all individual utterances possible. Thus, rejecting the idea that language is a word-heap gradually accumulated over time, Saussure's emphasized language as parts of systems of relations, a distinction within a system of opposites and contrasts ("in a system of language. . .there are only differences, with no positive terms").[5)] This understanding of language as a system was one step toward AI. Another came from Noam Chomsky's revision of it:

[5)] As Jonathan Culler explains in *Saussure,* in the seventeenth century Port Royal Grammarians saw language as a picture or an image of thought to discover a universal logic, the laws of reason and in the eighteenth century linguistics is regarded as an example of misplaced concreteness through individual signs whose autonomy was assumed. But Saussure's emphasis upon the forms' defining functional qualities made suspicious these previous notions of historical continuity. Instead, Saussure posits that discontinuity, or differences of meaning, would be the ground of representation. Especially by showing that behavior is made possible by collective social systems, Culler insists that Saussure, like Freud and Durkeheim, helped to lay the formation of modern thought.

> As a structuralist (in the broad sense), Chomsky has always been insisted on the validity of the distinction between *langue* and *parole*, which by 1965 he had come to call "competence" and "performance" respectively. Chomsky chose to coin new terms rather than retain Saussure's since he wished to underscore two important differences between competence and *langue*: competence encompasses all syntactic relations in language, while *langue* does not, and competence is characterized by a set of generative rules, rather than by an inventory of elements. (Newmeyer 1988, 72)

As Frederick Newmeyer notes, "the computer revolution, too, has begun to boost generativist fortunes" (93).[6)] Chomsky's "command and control" system in generative rules of competence appeared as the most "friendly" way to interact with a computer. Making breakthrough in the nature of universal grammar, Chomsky's minimalist program broadens the field of linguistics to include both the biological limits of human beings and the fundamental questions of human existence in both science and humanities. It is not hard to suppose that as a social product, the computer-mediated language has given a great impact upon modern thought and appeared as a popular topic in SF.

II. LINGUISTICS AND POSTMODERN SCIENCE FICTION

As the printing changed common people in the middle ages to literature class who could challenge the authority of both church and state, the electronic media in the information age has brought new ways of seeing the world. Especially interacting with the turbulence emphasized in chaos theory, postmodern theory challenges rationality as a paradigm and questions the possibility of truth and progress.

In its interpretation of a world of differences, namely in a world of interpretations, Poststructuralism identifies all human understanding as a construct of discursive formations and relations, and deconstruction concentrates

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[6)] Harris and Newmeyer both note, to handle all of the apparent counterexamples to the Katz-Postal hypothesis (such as the difference in meaning between *Many men read few books*, and *Few books were read by many men*), generative semanticists came to develop a global rule or global derivational constraints (if one logical predicate asymmetrically commands another in semantic representation, it precedes it in derived structure).

on dismantling theories of everything. This leaves humans in the late twentieth century in what has been called "the postmodern condition"—a condition that seems to be better approached by generative semanticists than by Chomsky, though, as we shall see, Chomsky's work actually has more in common with postmodernism.[7] Raising a question of whether human subjectivity is a manageable entity or not, the so-called "linguistic wars" between Chomsky and generative semanticists well display this controversial issue of whether language is consisted of regular syntax or irregular semantics.[8]

Generative semanticists' vehement dissatisfaction with Chomsky's theory was, as Postal and Lakoff said, that by ignoring meaning Chomsky's syntax does not and cannot admit context remaining artifact. For generative semanticists, the trouble in Chomskyan theory is that one can discard too much data ending up with an unproductively narrow view of language. To avoid the same sort of error, generative semanticists thought that Chomsky must not discard pragmatics. In this regard, it is a natural result that while the interpretivists loved theory, generative semanticists loved data.

In *The Linguistic Wars*, Randy Allen Harris summarizes the collapse of generative semantics treating two traits (its embrace of a wide range of interests and its self-definition primarily in the rhetoric of dissent, in saying no to Chomsky) as the principal reasons the movement fell apart (230). Most importantly, Harris contrasts generative semanticists' dazzling data with Chomsky's amenable problems, saying that "the generative semanticists celebrated mysteries, Chomsky avoided them" (239).

Interestingly, numerous extraordinary languages appeared in SF are in a way the dramatized continuation of this linguistic war about the mysterious realm of

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7) Interestingly, the division of the semantic/syntactic as the cultural frame is also found in Frederic Jameson's *Political Unconsciousness*: "When we look at the practice of contemporary genre criticism, we find two seemingly incompatible tendencies at work, which we will term the *semantic* and the *syntactic* or structural, respectively, and which can conveniently be illustrated by traditional theories of comedy" (107). For Jameson, the texts of Molière, Arstophanes, Joyce, and Rabelais belong to the first group while texts from Aristotle, Freud, and Vladmir Propp to the later group.

8) Randy A. Harris in *The Linguistics Wars* (Oxford, 1993) deals with the historical study of the utter schisms between generative and interpretive semantics and the collapse of generative semantics by the late 1970s. Harris summarizes the background of how this schism developed into the state of hostility which Paul Postal called "the linguistics wars": " Generative semantics wanted to leave the language pie pretty much as a whole, describing its shape and texture noninvasively. Interpretive semantics wanted to slice it into more manageable pieces. But as the battle became more fierce another border dispute arose, an extra-theoretical one, concerning the definition of the entire field, the scope of language study, the answer to the question, *What is linguistics?* " (7).

meaning in human language. Like generative semanticists, some writers daringly delve into the sacred mystery of semantics in language whereas others avoid the dream of a universal language by holding themselves to manageable data. If we accept Mark Turner's view that "the real is in the blend," the Chomskyan view of syntax which is completely separated from semantics is wrong. Turner insists that "Syntax arises from the projection of semantics onto phonology" (160). This centrality of conceptual structure in the cognitive semantics can be traced through the appeal of meaning in the generative semantics because for Lakoff, McCawley, Postal, and Ross, there is no principled distinction between syntactic and semantic processes. In this regard, most SF writers are essentially generative or cognitive semanticists but their common sense about this mysterious area divides them into passionate supporters of an idealistic universal language and another group suspicious of that.

While the telepathic language of some aliens or cyborgs resemble the dream of the generative semanticists, computer-mediated AI language in SF often follows Chomsky's cautiously avoiding messy blended areas of meanings. Samuel Delany's description of the ideal telepathic universal language in *Babel 17* shows us this dream to be like God. By contrast, Neal Stephenson's *Snow Crash* reveals that returning to language of Babel means only our voluntary submission to the hallucinatory totalitarian power. The rest of this chapter will concentrate on the details of scientific imagination of these two different versions of speculative language in science fiction which were directly or indirectly inspired by real world linguistic wars between ideal linguists and practical linguistics.

III. DELANY'S *BABEL 17*

Given that language, as Whorfian theory suggests, is an indispensable tool for growth and change in a defective society, it is rather natural that many people dreaming the technotopia insist on the priority of ideally computer-mediated or mental language in science fiction.[9)] Because science fiction does not require any limit on the imagination, many linguistically experimental science fiction (SF) writers contend that new language works more strategically and dynamically as a

9) In the Sapir-Whorfian hypothesis, the Hopi is considered to have different thinking ways, because stones and clouds are treated as [+animate] properties.

myth and a tool for human liberation in the coming technopolis. As the highly artificial language similar to computer codes (like generative semanticists' dream of perfect generative syntax merged with semantics), Babel 17 shows the new process of communication in the factual interplanetary environment. When Rydra Wong, an intergalactically renowned poet and linguist, is asked to take the mission of interpreting the dense and strange language of Babel 17 to settle sabotage attempts among Alliance installations, she is affected by her growing knowledge of this new language and recognizes that her understanding of reality has become much sharper than before. It is mainly because in Babel 17 words imply both things and the structure of things and therefore bespeak reality more effectively. Yet, as George Slusser points out, Babel 17 is not the perfect instrument of communication despite its efficiency:

> In its [Babel 17's] speakerless perfection, however, this seventeenth variation on Babel, far from reuniting men only divides them further. . . As an abstraction, Babel-17 is dangerous precisely because it denies That diversity of language that resulted from the fall of the original tower. . . . Delany's is a fortunate fall, for the necessary condition for unity in this world seems to be the broadest possible diversity--Babelian variety itself. In this novel true union of human beings occurs only where speech centers are most disparate; communication is most creative when tension between the speakers is at a maximum. Each man, in fact, weaves his own language web. To the extent that he knows himself, each is potentially an artist. (40)

Rydra displays her skillful communication ability through the cryptographer's telepathic talents. Yet, not until Byron Ver Dorco, the coordinator of Alliance research projects, is killed by a mysterious saboteur and Rydra is enmeshed in a web on a strange ship, can Rydra break the codes of Babel 17 through the words' basic structure of the web. Although Rydra can break herself from the partial reality through her acquired knowledge of the coherent relation between words and things, she is longing for communication with the aliens who use this artificial language. On a private ship named Jabel's Tarik, Rydra meets various types of people among whom Butcher speaks a strange language with no concept of I in Babel-17. Douglas Barbour points out the cultural importance of Jebel Tarik:

> In *Babel 17,* Delany explores the relationship between language and culture, or, more specifically, between language and *Weltanschauung,* more comprehensively than previously. As in *Empire Star,* the forms of speech of the people in the military, Transport, Customs, or the pirate society of Jebel's Tarik imply various differences in outlook in those subcultures. . .the "pirate" society of Jebel's Tarik, with its Spartan readiness to fight and its almost medieval dining customs and entertainments, including an official jester. . . where a desire for culture and a high cruelty mix spontaneously, and the criminal and prison sub-culture of the Alliance implied in Butcher's memories of his recent past life. . . fill in a picture of a huge and varied society, like any human society but "different" too. (112-4)

Similarly, focusing on Jebel's Tarik, Carl Malmgren poses the question, "To what extent are freedom and order mutually antagonistic?" (6). He explains the communication in mind between Rydra and Butcher (who is proved later to be the son of Baron Ver Dorco) from the psychological angles:

> The mind-link [between Rydra and Butcher] is at once sexual"--She had Entered him in some bewildering reversed sexuality" (159)--and archetypal--"the Criminal and artistic consciousness meeting in the same head with one language between them" (160). This experience is necessary for Rydra to become capable of doing what she has to, namely acting with the kind of ruthlessness it takes to put an end to the senseless and destructive intergalactic war. . . .By tapping into the unconsciousness, by making ego go where id had been, Rydra has indeed become larger; she has, in effect, become whole. (13-4)

By its lack of distinction between the self and the other, Babel 17 works as "the bridge between fragmented and isolated worlds, as a language system with the potential to make its 'speakers' to grow" (Malmgren, 13-4). At the same time, Babel 17 doesn't assure the responsibility of the speaker. So the next project for Rydra becomes building a new language model, Babel 18 which has both the direct link between words and things and the responsibility of personal pronouns.

The new conception Rydra acquires through thinking in Babel 17 is mythic signs which reinforce the dominant values of culture. For Barthes, myth is a

culture's way of understanding something. About the cultural implications of myths, Em Griffin notes, "All his [Barthes'] semiotic efforts were directed at unmasking what he considered the heresy of those who controlled the images of society--the naturalizing history" (118). As the second order in a way of signifying, the sign system of the first, connotation, is inserted into the value system of culture, the myth. For instance, Rydra's Myna bird just repeats to say, "Hello, Rydra, it's a fine day out and I'm happy." Like Barthes' semiotic study of myths and symbols, Rydra after communicating with Butcher recognizes that the Alliance in Babel 17 means the invader by its "controlled images" of mythic structure just as the bird repeats the trained words without grasping their meaning. Through Rydra's information-process skill including muscle reading and mathematical language, Delany suggests a new rich culture in which language reveals "the fluid, multifaceted nature of reality that makes possible both reconciliation and personal growth" (Barbour, 331). Because in Delany's novel order and chaos are usually merged into the same signs, the initial sensitivity to change and difference is often expressed through the artists and the criminals. Like ex-convict Butcher who introduces Rydra the subconscious world, many critics point out this link between art and crime:

> The criminal and the artist both operate outside the normal standards of society, according to their own self-centered values systems. This allows them the detachment to comment on social issues, but more importantly it divorces them from social norms so that their points of conflict with society can define an aesthetic that emphasizes the revolutionary nature of artistic creation and the separation of the creative mind from the background of society. (Alterman 22)

Charles Nilon emphasizes their difference as the source of powerful communication: "The power of the artist and of the criminal, the power of their difference, appears to be an ability to order and to force others to take notice and act. Theirs is a power of communication, a power of language" (66). Because these creative individuals' relation to society function as the effective communication for dynamic culture, Rydra's breaking the complex web of language, mind and behavior symbolizes the harmonious balance of social knowledge and technology. Sandra Govan especially notes Delany's subtle stress on ethnicity: "Rydra Wong is an Asian woman. The one man she relies on when

she is distressed by her own formidable powers of perception is an African man, Dr. Markus T'mwarba, her psychotherapist. (44)

Understanding the semiotical web through this comprehensive cultural recognition is always, in fact, repeatedly illustrated for avoiding the rapidly growing chaotic errors. For Delany, language and technology are two main systems that can destroy men without comprehensive, semiotic understanding of the controlling understructure. Like Babel 18, the fusion of language and technology creates new mythologies.

IV. STEPHENSON'S *SNOW CRASH*

In real world linguistic wars, Harris evaluates generative semantics as something of an Alamo, the honorable massacre. He thinks that generative semantics affected formal linguistics in innumerable ways without clear acknowledgment (for example, indexing devices, traces, and filters are by-products of generative semanticists' serious investigation of syntactic phenomena). Even though Harris does not mention the generative semanticists' organizational problems (Newmeyer mentions that "only McCawley was able to build a stable base and following"), his tone reflects Newmeyer's account of generativists' "Pyrrhic victory of sorts." Through their confrontations with the fuzzy, contextualized, meaning-driven data that Chomsky disregards, Harris concludes that generative semanticists made linguistics more vibrant, pluralistic, and daring than it has ever been.

What Neal Stepheson shows in *Snow Crash* is not "fuzzy, contextualized, meaning-driven" unlike Delany's *Babel 17*. Instead, Stephesons reveals that this "vibrant, pluralistic, and daring" world of semantics also comes from resistance against the universal language of the snow crash virus. In *Snow Crash*, the dismal near future of cyberculture in America is featured as the Burbclaves, miniature nation states, or franchised suburban states, which have been privatized and run like businesses. The former Library of Congress and Central Intelligence Agency are merged into the Central Intelligence Corporation. Monopolized by a few elitists in massive corporations, the metaverse shows the apparent equations of money and good cyberbodies, the updated interface version of plastic surgery. In fact, the metaverse as the ideally imaged version of a chat room is far from the teledemocracy:

> In the real world—planet Earth, Reality—there are somewhere between six and ten billion people. At any given time, most of them are making mud bricks or field stripping their Ak-47s. Perhaps a billion of them have enough money to own a computer; these people have more money than all of the others put together. Of these billion potential computer owners, maybe a quarter of them actually bother to own computers, and a quarter of these have machines that are powerful enough to handle the street protocol. That makes for about sixty million people who can be on the Street at any given time. Add in another sixty million or so who can't really afford it but go there anyway, by using public machines, or machines owned by their school or their employer, and at any given time the Street is occupied by twice the population of New York City. (26)

Born from the marriage between an American-sergeant-major father and a Korean mother, Hiro Protagonist delivers pizza for Uncle Enzo's Cosa Nostra Inc., the global Mafia business in informational capitalism. In this dazzlingly programmed metaverse, however, this uncertain identity does not matter. Hiro does not even "know whether he was black or Asian or just plain Army, whether he was rich or poor, educated or ignorant, talented or lucky" (61). Only with a set of goggles and a computer can people be closer to the person they like. Money decides the quality of the figure to a great extent. Despite this mob identity in the metaverse, computer-generated bodies are described as organic enough for the system virus to infect the user's real body through magical bodily fluids. Due to ingrained understanding of binary code, a new computer system virus called Snow Crash mentally infects computer programmers at first glance:

> "Snow Crash" is computer lingo. It means a system crash—a bug—at such a fundamental level that it frags the part of the computer that controls the electron beam in the monitor, making it spray wildly across the screen, turning the perfect gridwork of pixels into a gyrating blizzard. (42)

An anthropologist from Texas, L. Bob Rife uses virus that plagued ancient Sumerians, causing its people to speak Babel. As a founder of the transethnic group of "The Raft," Bob Life spreads the so-called "Asherah virus" through either bitmaps or drugs and tries to conquer the world by creating a cult religion. Equipped with swords, Hiro Protagonist is compared to Enki, a Sumerrian demi-

god who defeats a fire-breathing monster named Humbaba. While he earns money working as an information scout for the CIA and Library of Congress, his best friend Da5id (a member of the Black Sun—a hip members-only club run by Raven) was infected and sent into a coma by the transmitted virus, snow crash.

Hiro came to be suspicious of the designer who misuses the self-propogating virus for his vicious totalitarian scheme. In the postmodern civilization on the brink of collapse interwoven Sumerian myth, Asherah is compared to the Electronic Eve who tempts people to taste the designer drug metavirus. Enki as a mythic Jesus Christ provides humans with ability to evade mass viral infection. Through viral transmission either by bloodstream or by mental infection, the Asherah virus enables humans to speak glossolalia. Speaking in tongues makes humans process the same information in the same manner and their critical abilities about differences are destroyed by the homogeneous brain washing process. Yet, as the Nam-shub of Enki changed the Summerian's universal language into diverse languages, Hiro's hacking ability is expected to break the Bob Life's globally paralyzing scheme of informational society, with help from a fifteen-year-old skateboard courier Y.T. ("Yours Truly").

While Enki is regarded as a savior to protect people from infection, science functions as the source for both the fragmentation and fluidities of cyborgianized identities by changing society into the information-flowing network. Hiro's interaction with a computer-generated Librarian is a good example for what Jay Bolter means by 'synthetic intelligence'. Librarian lectures as the human interaction with computer provides insights that the Asherah viruses are malignant by manipulating the basics of the human brain.

Throughout the novel, Stephenson does not forget that Babel is a religious realm which is now separated from science: "Babel is a Biblical term for Babylon. The word is Semitic; Bab means gate and El means God, so Babel means 'Gate of God" (107). What he implies is that although science can help as "synthetic intelligence" with even some insights, our desire to enter into "the Gate of God" through science alone should not be recommended. The both dismal and hilarious atmosphere of the entire novel reveals how science can be hope and despair depending upon our intention to use it, just as Chomskyan linguistics did. For Stepheson and Chomsky, hopes are maintained by valuing the plurality of meanings in the seduction of universal domination that might be inherent in human languages. Stepenson's flexible 3-D images of avatars and Chomsky's discarding of Universal Grammar in his later period attests to their valuing

plurality. In this regard, consider what David J. Gunkel mentions in "Lingua ex Machina: Computer-Mediated Communication and the Tower of Babel":

> Plurality that would have deformed the Babelian narrative can also be perceived as a significant advantage and gain, one that opens computer technology to a plurality of competing inter-pretations that makes room for irreducible and contestatory positions. (89)

In a society constructed by a labyrinthine discourse of technocratic control and spectacles, SF functions as a dominant language. As J. G. Ballard wrote:

> Science and technology multiply around us. To an increasing extent they dictate the languages in which we speak and think. Either we use those languages, or we remain mute. (cited in Bukatman, *Terminal Identity* 31)

Through this allegorical impulse inherent in SF, SF language becomes the hyperbolic, inverted and defamiliarized language. In a society of spectacle and simulation, as Guy Debord theorized, the commodity-form is experienced as alienation to such a degree of abstraction that it becomes an image (Kroker 17). Similarly, Jean Baudrillard notes that "the subject is so overtaken by the forces of the spectacles that simulation becomes a new reality" (Bukatman 18).

As the defining metaphor in the information age, AI in SF, through cognitive activities and mediation between postmodern culture and language, allegorizes the danger of human subjectivity (as a sellable or controllable item) in the trend of commercialized simulation of standardization. However, the enhanced and dramatized language of AI in SF, as the allegorized version of real world linguistic wars between syntacticans and semanticists, faithfully reveals what is so-called the terminal identity. Bukatman writes, "terminal identity exists as the metaphorical mode of engagement with this model of an imploded culture" (22). The terminal identity is above all characterized by the refusal of the subject to be a fixed site of identification and it is most effectively exemplified in the paraspaces of science fiction and its dramatized version of linguistics about semantic in AI narratives.

V. CONCLUSION

In terms of visualization formed by language, Delany's *Babel 17* constitutes realistic paintings of an idealized world while Stephenson's *Snow Crash* forms abstract paintings of subjective emotions. Abstract images based upon fuzzy semantics are confusing but we often feel something deeper than the realistic visualization of the ideal world. If language shapes thoughts as in the Whorpian hypothesis, the Oriental languages such as Korean and Japanese are rather closer to abstract paintings. They prefer to omit subjective pronouns and rarely use nonliving pronouns, thereby resisting personification. The haziness of meaning is more enhanced in Korean and Japanese because in both languages the syntax is SOV instead of the SVO: So many Westerners complain about their long waiting to know yes or no until the Koreans and Japanese reach the final uttering of verbs.

Although Westerners praise clear expression of thoughts, we need to question if language sometimes blocks our thoughts.[10] Oriental culture presumes that deep thoughts often come from silence and meditation while the Western culture expect them to arise from discussion. While the computer boosts the trend of simplification by its combination of 0/1 bits, the deterministic or reductive world is limited only to the hypertextual multification of lexis and computerized simulation of fractals. Rather through chaos (abstract paintings/silence) hidden and paralleled with order (realistic paintings/discussion), deeper meanings emerge behind the tangible existence. When our innerscape is focused more upon this "becoming" or "metamorphic" process of the cosmos instead of extant stagnant forms of beings, we will surely get closer to the cosmic evolution reflective in human mind and language.

The baby's babbling reveals how language is both simple and complicated. Children's language shows us the changing process of a soul revealed by language use just as snow is the another form of H2O, besides liquid, vapor, and cube.[11] In this regard it is no wonder that many languages of AIs in SF borrow

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[10] Cohen warns about this mechanistic barreness in our society: "While a great deal of attention is given to the problem of making a robot simulate a man, less notice is taken of men who habitually behave like robots" (125).

[11] See how Rudolf Steiner relates Divine Child to wisdom: "The faculties by means of which the earth's depths, the mysteries of the souls of men and of the nature of the animals were perceived, were faculties which at first developed in germinal form in the human being and which manifested for the first time after death—but they were youthful faculties, potentially germinal. Although it is after death that these faculties become particularly creative; in earthly life they arise as potentially germinal

their source from children's language acquisition processes. Although our linguistics focuses more upon the status of syntax and semantics (comparable to the definite structure of solids), children's language is closer to amorphous consciousness *per se* (like vapor in ethereal or gaseous states). If linguistics knows more about mystery of this 'language of thoughts' or 'mentalese' of children's language, no doubt that the AIs in SF will accommodate more fascinating and dynamic (like fuzzy status of snow) fertility opening our mysterious linguistic potentiality into the new universe where there is no more fault-line or slippage or indeterminacy of language.[12)]

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forces during the first period of earthly life, in the child" (*The Search for the New Isis the Divine Sophia* 38-39).

12) For example, refer to Anne Baring's following remark on the children as the mystic source of the human and the universe: "The child who is the artist, the poet, the musician and mystic at the heart of each one of us, the child who is the true creative nucleus of the individual, who is our vital connection to the ground of being, begins to feel, begins to come to life, begins to trust life, no longer fearing catastrophe, begins to feel happy. Then a miracle takes place. The person imprinted with guilt, whose internal voice said 'I hate myself' and whose actions said 'I hate life; I hate other people' begins to say 'I love myself, I love life, I love other people'" (355).

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Examples in: English
Applicable Languages: English
Applicable Levels: Tertiary, Adult

Ilgu Kim
Dept. of English Language & Literature
Hannam University
Ojeong-dong, Daeduk-Gu
Daejeon 306-791, Korea
Tel: (042) 629-7361
Fax: (042) 629-7306
Email: kutx@hannam.ac.kr

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