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Dining with the Cyborgs: Disembodied Consumption and the Rhetoric of Food Media in the Digital Age

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DINING WITH THE CYBORGS: DISEMBODIED CONSUMPTION AND THE RHETORIC
OF FOOD MEDIA IN THE DIGITAL AGE

by

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ABSTRACT

This project explores digital media productions based specifically on food and cooking in order to demonstrate that new communication technologies are increasingly incorporating all five of the bodily senses. In doing so, they contribute significantly to the emergence of new ideological apparatuses appropriate for a global community. These apparatuses – including the formation of a posthumanist subject, the use of technology to support embodied cognition, and the establishment of entertainment as an ideological institution – have become the harbingers of a rhetorical evolution.

Based on the work of Gregory Ulmer, along with Jacques Derrida, N. Katherine Hayles, Donna Haraway, and Cary Wolfe, this evolution expands the work of Plato and Aristotle by overcoming the privileging of mind over body and abstract reasoning over concrete physical experience.

As such hierarchies become turned on their heads, a renewed emphasis on materiality and embodiment demands virtual products that stimulate the body. As such, a phenomenon I have named *disembodied consumption* takes place whereby users' chemical senses can be incited through participation with digital technologies. Through the stimulation of these physical senses, and in turn the connected emotions, today's digital citizens are practicing the rhetorical method referred to by Ulmer as *conduction.*

By examining sites, blogs, and postings that include references to food and flavor, I reveal examples of conduction and show how this method is necessary for the development of well-being, and the defeat of *compassion fatigue* in digital society.

I dedicate this dissertation to my husband Jemal – my best friend and partner in everything –

who, with patience and persistence, keeps me at my word so that I finish everything I start and

never give up. By each other's sides, we can do anything! I love you forever and ever.

ACKNOWLEDGMENTS

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GASTRONOMICAL GRAMMATOLOGY: HOW AN EXPLORATION OF ONLINE FOOD

MEDIA CAN ADVANCE THE DEVELOPMENT OF DIGITAL RHETORIC

The popularity of food in today's culture has been steadily growing for the last two decades.
This is evident in the burgeoning numbers of food-based television shows and even entire
networks like *FoodNetwork* and *Cooking Channel;* popular movies such as *Like Water for
Chocolate* , *Big Night, Julie and Julia,* and *Eat, Pray, Love;* innumerable documentaries
including *Supersize Me, King Corn*, and *Food, Inc;* the plethora of food company websites,
individual blogs, and personal postings of photos and recipes (Google alone counts one billion
recipe searches per month); and even the expanding development of food studies curricula at a
rising number of colleges and universities (Cargill, Halfond).

But why now? Why, in the age of digital interactivity and cyber communication would a subject
as concrete and visceral as food be increasing in relevance? This dissertation suggests that the
current intrigue in the foods we eat – their origins, means of procurement and preparation,
appearance, and nutritional and environmental value – has to do with the rhetorical power
achieved through stimulating the bodily senses of taste and smell at a time when new techniques
for learning, connecting, and expressing our identities are emerging almost daily through new
media.

Food is, in many ways, a language. It can signify elements of our identities, such as cultural heritage, class, and even gender. For example, In America, meat with potatoes is commonly considered a masculine dish, while women are often thought to prefer salads or fruity cocktails. Through food, one can often send messages as clear as if they were spoken verbally, such as the event mentioned in *The Autobiography of Alice B. Toklas*, whereby a servant in Toklas's home expresses her displeasure with an uninvited Henri Matisse by frying him eggs rather than making him an omelet. Furthermore, many messages shared through food are not even reducible to words, like when the taste of a Madeleine cookie evokes a barrage of ineffable emotions and recollections in Proust's *Remembrance of Things Past*. Because of this power to communicate nonverbally, food can also be used to connect people across cultures in a similar way that Lev Manovich argues images can do. In his study The *Language of New Media,* Manovich describes the use of digitally mediated images as a "visual Esperanto" (79), a language that can be shared around the globe with no need for translation. Food, presented through various digital and concrete forms, exceeds other images in this endeavor due to the depth of meanings and memories that can be aroused by taste and smell.

Because of its power to communicate a broad spectrum of personal, cultural, and emotional significations through a variety of sensory channels, this growing ubiquity of food-based media has inspired the emergence of new rhetorical methods. In his text *Internet Invention,* Gregory Ulmer seeks to both discover and invent just such methods by calling on scholars to apply sensory images, from the vast inventory available through new media, to a type of logic he calls conduction. Ulmer suggests that conduction, an emotional and poetic logic, may expand the

potential of digital communication in the same way that the analytical reasoning designed by Plato and Aristotle increased the power of early writing technologies beyond aiding memory. Further, while grammatological theorists, including Ulmer, Ong, and McLuhan, acknowledge that the invention of writing separated communication from our physical senses, they point out that today's digital media are moving toward the inclusion of the entire sensorium. These media reflect the cultural and ideological shifts that continue to accompany new technologies. In particular, they demonstrate a rise in posthumanist and cyborg theories that address the symbiotic relationship between information and bodies. This dissertation is an analysis of these newly emerging forms of digital rhetoric, specifically those that embrace the senses of taste and smell, as a means of answering the challenge set by Ulmer over ten years ago.

This project, then, seeks out online evidence of emerging rhetorical techniques that address the entire physical sensorium, including the senses of taste and smell. These digital texts will be analyzed not only to determine new ways in which behaviors and opinions of participants are being shaped, but also to reveal the cultural shifts that inevitably accompany such vast technological innovation.

In addition to classrooms, advertising agencies are increasingly incorporating not only music and color, but also texture and touch experiences, fragrances, and even some stimulation of flavors into their products. Axe Dark Temptation Bodyspray, for example, advertises a "subtle aroma of chocolate with fresh gourmet scents" (Axe). Multi-sensory engagement is also a foundation in video game design, Virtual Reality programming, simulation training, interactive narrative design, art installations, and even theme park attractions. The physical and emotional reactions

that take place within the bodies of those who engage with these media are proof of their power (Mania and Chalmers). This dissertation will examine the ways in which digital communication is growing increasingly multi-sensory – specifically in the area of food-related media – and in doing so, shaping new rhetorical methods that are particular to composition in the digital age and reflective of a posthumanist ideology.

While such multi-sensory media described above are often the products of teams of professional designers and builders, regular internet users often produce their own instances of corporeal titillation online through sites related to sex or food. These two topics have become cultural phenomena in the digital age because they embody the ultimate articulation of the physical and the virtual. Particularly through new ways to invoke the proximal senses of touch, taste, and smell, online communications are continuing to close the gap between concrete and abstract. At this threshold, theories of embodiment and disembodiment tug at each other. Within the blurred lines of the interface between physical and virtual reality, we can discern the material, be it light or sound waves, muscles, or brain synapses, which contains all information. The sensory immersion made available by digital tools offers us the opportunity to prove once and for all that Cartesian dualism is a fallacy. Not only is information always contained within a material context, but the inverse of this claim is also true: there is no material object or being from which messages cannot be derived.

So, if all objects, including images, dishes of food, and even living creatures, can communicate meaning, and if the stimulation of the physical senses proves memorable and persuasive, then an analysis of food-related online artifacts is not only relevant, but necessary to the current

scholarly endeavor to invent or discover advances in rhetorical methods. Furthermore, discovery

is to be privileged over invention as the sheer volume of food-related online activity allows for

an emergence of these new methods among users at rates with which individual scholars cannot

compete.

Finally, the renewed appreciation of what had commonly been understood in Western thought as

the "lesser senses," taste and smell, is toppling several other long-standing hierarchies formed by

the humanist tradition. Through this recent "sensual revolution" (Howes 1), we have begun to

consider deeply the origins of what we eat daily, as well as the impact of this consumption on

our bodies as well as our environment. This appreciation is inevitably connected to an emerging

posthumanist paradigm that views the body as a self-sustaining system dependent on the larger

systems of nature and culture that make up the food web. By recognizing our interconnectedness

and interdependence on other living and nonliving beings, we can, in fact, reshape personal and

political values. In this sense, food-related online compositions deserve analysis as both

examples of digital rhetoric and artifacts of digital culture.

<u>The Rhetorical Power of Multi-Sensory Experience</u>

Ulmer applies the framework of grammatology – the examination of the ancient shift from oral

to literate culture – to the current transition from literate to digital, or what he calls *electrate,*

culture. During the first shift, new writing systems allowed for the invention of academies,

wherein scholars developed and practiced the verbal analytic process of formal rhetoric (*Internet*

Invention 28). As we move into the digital age, Ulmer considers what characteristics and purposes shape a rhetoric to which we can apply our new tools. To begin with, he claims that entertainment has taken over as the primary ideological practice of electracy, moving away from science and academia (the-learning-screen). Within this field of entertainment, he looks to advertising for insight into both the values of today's consumers, as well as into the methods deemed most effective in their persuasion.

The rhetorical methods of advertisers Ulmer chooses to analyze support his suggestion that the logic of the era of electracy must move beyond the process of linear reasoning for the purpose of defining concepts and, instead, reveal connections among the subjective contents of individuals' consciousness in order to expand the emotional awareness of citizens and lead to an increased ability to perform such much needed tasks as collaboration and community problem-solving (*Internet Invention* 18).

With the quest for emotional stimulus in mind, Ulmer points out the effectiveness with which advertising agencies research and appropriate the "VALS (values and lifestyles) of consumers, in order to hail them directly in the ad" (256). By providing audiences with visions of a desired lifestyle and encouraging them to "recognize [themselves] as the sort of person who would use that product," these advertisers attach their messages to those feelings of desire and empathy that form a type of identity for the consumer (ibid).

 At the same time, Ulmer expresses his aversion, as does McLuhan, to ads that commodify images of the human body, particularly those that encourage superficiality by concealing the actual physical experiences of people. He quotes Agamben's claim that "the process of

technologization, instead of materially investing the body, was aimed at the construction of a separate sphere that had practically no point of contact with it" (235). In Ulmer's view, effective rhetoric engages bodies through the stimulation of emotion, which triggers actual physical feedback called *punctum* (44). Effective rhetoric does not merely rely on surface images that remain detached from a consumer's concrete experience. Such detachment would support a "society of the spectacle" (6).

Ulmer takes, for example, the images used in ads for Chanel Number 5, Marlboro, Camel, Apple Computer, and Reebok, suggesting that these have become icons within our contemporary mythology (248). They signify our desire for glamour, gender identification, morality, and "inner-city" credibility (314). While such images are emotionally powerful and, therefore, persuasive, more recent trends in marketing demonstrate the effectiveness of providing signifiers that stimulate more than just the eyes. Based on theories in affective computing, sensory marketing seeks to create a multi-sensory atmosphere that encourages a particular mood or emotion within the consumer. This atmosphere is presented either through the environment of the store or through the characteristics of the product itself (also known as sensory branding).

In the introduction to *Sensory Marketing: Research on the Sensuality of Products,* Aradhna Krishna mentions the example of lemon-scented dish detergent. She highlights the power of the sensory stimulus by explaining that, "[w]hen people started associating the lemon scent with a feeling of cleanliness, even the demise of the relationship could not preclude the perceived link from persisting, so that a lemon scent still indicates 'cleaner.' Sensory feelings are difficult to eliminate" (4). In other words, the stimulation of sensory faculties can form deeply held beliefs

established through the combination of physical experience and cultural context. Not only do we make meaning through more than just visual stimuli, but we also retain these meanings for longer durations when they are constituted within a more holistic concrete context.

With regard to the invocation of these senses via digital interaction, Paul Rozin and Julia M. Hormes suggest appealing to both the memory and the anticipation of physical taste and smell experiences that cannot yet be conveyed electronically. In "Psychology and Sensory Marketing, With a Focus on Food," the authors suggest that, while "the eyes and ears … constitute our principle way of finding out about the world around us… [most] visual and auditory experiences … are affectively neutral" (304). In contrast, haptic, olfactory, and gustatory experiences inherently register a positive or negative valence (304). In doing so, they establish significations that can drive consumer behavior in, possibly, life-changing ways: "The psychology of savoring and reminiscing, and their tradeoffs, and the parallel psychology of dreading and remembering negative events have many implications for marketing and for optimizing the pleasure of life" (313).

In addition to identifying the emotional and rhetorical significance of even thinking about taste and smell experiences, these two authors also describe the influence of *information* on sensory stimulation. For example, "[a] piece of chocolate may taste delicious until one discovers that it was harvested with child labor or contained detectable insect residues," and also, "Wansink, Payne, and North (2007) report that the same wine is judged to be lower in sensory quality if it has a label that indicates that it comes from North Dakota as opposed to California" (306). Their point is that when information is added to the taste experience, the physical perception is

influenced.   I argue that the reverse is also inevitable: when digital citizens interact with online

information regarding sensory objects such as foods, they rely on their physical experiences

(either remembered or anticipated) in order to evaluate that information, even when it is

presented in such forms as text or images. Therefore, through the ever-growing references to

food in digital media, we are already increasingly communicating and shaping rhetoric by

stimulating both our emotions as well as the chemical senses in our bodies.

Impersonation through Immersion

Ulmer claims that today's culture, driven by entertainment, encourages citizens to view

themselves as images based on their desire to impersonate the status of the icon (26). He uses

Guy Debord's term "society of the spectacle" to name this phenomenon, whereby

representations become disconnected from physical reality but are valued by society as much, if

not more, than actual experience. This circumstance has become a source of dread among such

scholars as Kittler, Baudrillard, Jameson, Virilio, Eco, and even at times, McLuhan. In a 1977

letter to Canadian Prime Minister Pierre Eliott Trudeau, for example, McLuhan expresses his

concern over the disembodiment facilitated by twentieth century technology:

> At electronic speed, which is the speed of light, we are disembodied beings. On the
>
> phone, or "on the air," we are instantly present, but minus our bodies. Politically,
>
> discarnate man may have an image, but not a physical body. There is a corresponding
>
> loss of personal identity and responsibility which creates separatism in private life and

9

family life and in all institutional existence. (McLuhan et al. 528)

The point, as clarified by Ulmer, is that "a culture of images … undermines critical thinking"

(xiii). At the same time, Ulmer suggests that by using images in a deliberate way, the

superficiality of such a disembodied society can be combated. He relies on Barthes' concept of

punctum to demonstrate how taking or viewing photographs might stimulate the physical and

emotional cognition that stems from personal experiences. He quotes Barthes explaining the

process of this visual interaction: "However lightning-like it may be, the punctum has, more or

less potentially, a power of expansion. This power is often metonymic" (44). Barthes discusses

how a minor detail in a photo often relays a minor detail stored in one's embodied memory, one

that he says he can "recognize, with [his] whole body" (ibid).   He suggests that even a slight

feature within a photo can have the power to open up entirely new understandings of oneself and

one's environment.

In his search for a rhetoric appropriate to electracy, Ulmer calls punctum "the key to reasoning in

the electronic digital apparatus" (ibid). He claims that "[t]his power of a photograph *to stimulate*

involuntary personal memory is the point of departure for an electrate institutional practice"

(ibid). It is, indeed, a point of departure, which must be expanded to include emotions stimulate

through the rest of the physical senses. Ulmer makes clear, in his earlier work *Applied*

Grammatology, that the entire sensorium, and not just the privileged sense of vision, must be

incorporated into this new mode of thought meant to supplement traditional philosophy. He

states: "theory – the term and the activity – is not fixed, is still evolving or is capable of change;

the direction of that change … must be to emancipate the other senses from the tyranny of *eidos*

[meaning both idea and vision]" (33). In this way, punctum is not an event that is specific to the

use of visual images; rather, it can incite "obtuse memory" (45) anywhere in the body of a user. With this in mind, digital rhetoricians can combat the society of the spectacle by presenting their messages through a variety of modalities, such as music, possible haptic sensations, and even suggestions of smell and taste. These smell and taste suggestions are mostly communicated through a visual medium for now, such as a picture of a prepared dish; however, such a picture can, in fact, prompt chemical sense reactions. Indeed, both McLuhan and neuroscientist Antonio Damasio address how the stimulation of one sense often leaves impressions on other senses. These cross-sensory suggestions follow Ulmer's model of using specifically chosen or created images in order to combat superficial-image-overload. In the meantime, designers are working feverishly to create devices, such as digital olfaction systems, that are made explicitly to give agency directly to the experiences of the chemical senses.

Further, while the impersonation of images alone may have led to a society of the spectacle, today's multisensory digital tools allow users to mimic more than just surface appearances and, instead, to become physically immersed in information, leading to an expansion, rather than a reduction of the self. Immersion is a key concept in HCI design, including video games, learning games, interactive narrative, and Virtual Reality. Instruction manuals define immersion as "the physical experience [that] pertains to what is felt when interacting with real and tangible objects together with virtual elements" (Marcus 100). Additionally, "[e]ngagement could be a synonym for participation, involvement, and immersion" (Kurosu 4). To achieve immersion, users must be stimulated through several senses at once. Most design guides, however, mention that it is not currently possible to engage all five: For example, "The perception of the surrounding environment is the heart of virtual reality. In contrast to other types of computer visualizations

where only the sense of sight is used, virtual reality can potentially involve all five senses, though, to date, only sight, hearing, and touch have been used" (Bertol 68). Similarly, "The human perceptual system has at least five senses providing information to the brain. Three of these senses – visual, aural, and haptic – are commonly presented with synthetic stimuli in a VR experience. VR systems fool the senses by output of computer-generated stimuli rather than natural stimuli to one or more of these senses" (Sherman 73). While it is still rare for any current digital design to incorporate more that the first three senses, researchers around the globe have already begun to develop techniques that can allow users to smell and taste digitally.

Digital olfaction is the term for computer-generated fragrances. Scent companies, including Glade and Febreze, have been working for years to produce electronic scent emitting devices that might complement the changing environments of a video game or elicit a particular mood through ambient aromas. *Scentstories* works like a CD player, with a variety of scents advertised to "offer memory enhancement" (gizmag); the *Smellophone* is actually a chip "with about 100 different prefabricated scents" that plugs into any mobile phone (Hanlon); *Sense* is a product that connects wirelessly to a computer and provides a "more emotional connection between users and experiences" offering users "haptic, thermal and olfactory sensations while playing games, watching movies and shopping online" (Ridden). Researchers have invented a smell-based fire alarm (Clark); French citizens are assured that they will soon be enjoying a "scented interactive television channel" (France Telecom); the *i-Aroma* and Digi-Scent's *iSmell* plug into personal computers via a USB port (Ridden). While several of these inventions have already come and gone, the growing research in this field demonstrates the significance of achieving total

immersion through all five senses. Not only do inventions such as these hint at a future where digital media provides a more holistic experience – imagine connecting with your family from a thousand miles away via video chat and instantly inhaling the aroma of Mom's tomato sauce as if you were in the same room with them – but the eventual success of digital olfaction applications will also validate sensory stimulation as a means of cognition even as the physical barriers of space and time continue to diminish.

In addition to the creation of digital scent experiences, researchers are also inventing gadgets that are expected to provide a "computer-rendering of taste" (Dodson). For example, Dr. Nimesha Ranasinghe of the Mixed Reality Lab in Singapore has designed an electrode device that will enable flavor information "to interact directly with the brain areas which are stimulated by the sense of taste, which offers the possibility of sharing the experience of taste and flavor" (ibid). While the most common invocations of taste and smell online are currently resigned to incorporate themselves into images, videos, and text, these senses will soon interact along their own channels.

The practical benefits of developing fully immersive sensory environments are that they can be used to enhance effectiveness of not only classroom learning (Dede; Greenfield), but also of military (Mantovani; Fong), emergency (Andreatta; Farra), and athletic training (Bideau), as well as psychological and physical therapy (Kim; Rizzo). The scholarly theories that these smell-and-taste-immersive environments support include the advent of a "sensual revolution" in communication and art (Howes; Korsmeyer), an increase in the sense of presence in long distance communication (Derrida), and the embodiment of knowledge, memory, and identity

(Ulmer, Barthes, Hayles). Eventually, these sensory tools will become another prosthetic to replace those physical abilities we currently do without. How many times has Emeril Lagasse shouted from his kitchen studio through the television set, "Oooh! I can't wait till we get Smell-o-Vision so you can smell this at home!" (Poniewozic). In time, this lament will go the way of the rabbit ear antennae.

This prosthetic sense of presence through digital tools responds to Ulmer's claim that electrate rhetoric must pass from "Things," for example, the digital olfaction plug-in and the computer interface (or else the online artifact representing a taste or smell), to "Material Attributes," which would entail the chosen scent, or the content of the chosen website, to "Atmosphere," which creates a mood within the environment of the user, to "Feeling," by which we pass "from the externally ascertainable qualities of things to the inner experience of them. The bridge is the connection between atmosphere and feeling" (53). Ulmer argues that the importance of stimulating shared feelings among users is that it can transform into collective creativity and community problem-solving. He states that approaching problems from the point of view of the "General Economy (the sacred and heterogeneous dimension of experience)," might offer alternatives to traditional methods of consulting, particularly in a global environment such as the internet (78).

Embodiment and the Chemical Senses

Theories of embodiment support the claim that cognition, memory, and even creativity don't all happen in the brain alone, but also in the muscles, the organs, the nerves, the taste buds, and even

the skin of living creatures. In this sense, ideas are not only communicated through words and

numbers, but through colors, temperatures, sounds, odors, and flavors.

The cognitive power of the chemical senses is increasingly the subject of both neurological and

culinary research. In *Bite Me,* Fabio Parasecoli references Miguel Sanchez Romera, a

neurologist-turned-chef, who argues that memory and cognition are tied to emotions "through

the senses, the body, and its most basic needs, hunger and thirst" (35). Hayles narrows this

explanation further by quoting Grosz as saying, "Indeed, there is no body as such; there are only

bodies" (*How we Became* 196). Hayles explains that "[e]mbodiment differs from the concept of

the body in that the body is always normative relative to some set of criteria…. In contrast to the

body, embodiment is contextual, enmeshed within the specifics of place, time, physiology, and

culture, which together compose enactment" (ibid). It is these specifics, retained in our

movements, emotions, and scent and taste memories, that shape the self-referential knowledge

that is characteristic of the posthuman subject (Wolfe xx).

As knowledge is retained throughout the body, it can be recalled from throughout the body in

abstract exchanges that produce neurological stimulation. For example, in his research on "how

the brain creates images of smells" (ix), neuroscientist Gordon M. Shepherd has introduced a

new field of science he calls neurogastronomy. In his book of the same name, he addresses

issues such as the emotional connection to odors and fragrances, how flavor is perceived during

activity in specific areas of the brain, and how our blood knows when we are hungry. Not only

do these theories support views of embodied cognition, but they also address what I call

disembodied consumption, which is the stimulation of the chemical senses, taste and smell,

through digital interactions with high-definition, food-based images, videos, and text. This is a physical manifestation of Derrida's *trace,* in which the effects of that which is absent (in this case the chewing and swallowing) remain present in the digital food experience. The paradox of both embodiment and disembodiment being elements of posthuman existence is that both situations are paths to the same end: the recognition of the physical body's ability to contain and create knowledge within and beyond the boundaries of the skin.

Continuing the idea of sensory reactions to long-distance, electronic stimuli, Stone and Turkle both address the very physical experiences of participating in phone sex and cyber fantasy. Stone describes the activities of a group of erotic telephone workers as the condensing of all of the bodily senses "down to a series of highly compressed tokens" that move across long distance phone lines, where the recipient at the other end "add[s] boiling water, so to speak, and reconstitute[s] the tokens into a fully detailed set of images and interactions in multiple sensory modes" (7). This ability to achieve physical contact over distance demonstrates the body's capability to retain and recall concrete experience. Similarly, Turkle reminds readers of "the adage that ninety percent of sex takes place in the mind" (21) in her interviews with MUD participants who "use computer-mediated screen communication for sexual encounters" (20). These encounters are, of course, virtual simulations; however, several of Turkle's subjects would argue that these simulations are more "real," more effective and fulfilling, than encounters in the actual world (23). Along the same lines, encounters with digital food media can stimulate the same sense memory in such a way that the virtual experience can rival the actual.

This acceptance of simulation, or simulacra, as *real* experience leads us to another understanding of posthuman culture. Wolfe uses a phrase coined by Maturana and Varela to describe this type of experience as "embodied enaction" (xxiv), by which the observer within a system acts and responds to its perception of the environment. Since the perception is all that exists for this observer, it renders the environment, and every interaction with it, equally "virtual" (xxiv). As such, online interactions reflected in actual physical behaviors, like Ulmer's "impersonation" (131), function as rhetorical tools.

For Wolfe, the posthuman is identified with "embodiment and animality" (Peterson 136). The first term reflects the possibility of the virtual enaction described above, while the second suggests a total disassociation from language and technology. I would argue that the two terms can be reconciled if we return to the original perspective necessary to cybernetics, which is that living beings and machines can exist and interact on an equal footing (Hayles *How we Became* 3). In other words, distinctions between virtual and actual, or abstract and concrete, experiences are growing less and less solid. This view supports characteristics of posthuman existence and is appropriate to the study of food experiences in cyberculture, as there is little difference between simulated and physical interactions; the computer interface is as material a vessel of sensory information as a nude, writhing body or a sizzling steak.

Posthumanism and the Hierarchy of the Senses

The relevance of including posthumanist theory (or theories) in this study of multi-sensory digital rhetoric is that effective rhetorical modes coincide with cultural paradigms. Ulmer

reminds us that his search for a digital rhetoric is for "not only a practice for the new apparatus [the internet] but the very reasoning process of that apparatus in general" (28). Additionally, "the goal is not to adapt digital technology to literacy … but to discover and create an institution and its practices capable of supporting the full potential of the new technology" (29). This dissertation argues that citizens now reason through a global network of users, objects, and information best characterized in terms of a posthumanist subject formation.

The framework of posthumanism, through which many scholars – including Hayles, Haraway, Peterson, Wolfe, and Ferrando – examine digital culture, while broad, tends to emphasize an undoing of hierarchies establishing human superiority over nonhuman animals, humans over machines, and mind over matter. It is indeed, due to the development of new communication tools beyond the written word that this vast ideological framework gains credibility for, as long as reading and writing have remained the privileged means of recording and transmitting information, those who read and write have remained superior. Now that new communication techniques are emerging, we must consider how that reshapes our own identities in relation to nonhuman subjects, the environment, and our institutional practices, which perpetuate our most powerful values.

Definitions and categories of posthumanism tend to differ and overlap at the same time. Christopher Peterson, for example, addresses the theories' "promise of reducing violence directed both toward nonhuman animals and toward 'dehumanized' social and political others [which] depends on severing our allegiance to humanism" (129). Hayles agrees that posthumanism is another perspective by which "the liberal humanist subject [is meant to be]

cogently criticized." She adds, "… you have already become posthuman" (xiv). Peterson

concludes, however, that a total disavowal of humanism is impossible in that it is always retained

in *traces*. He states, "Drawing from Derrida's notion of the 'democracy to come,' I argue that

the advent of the posthuman must always remain deferred" (ibid). In other words, there can be

no absolute claim regarding how posthumanism is defined or whether or not we have ever

achieved the ideological shift from humanism to posthumanism. Wolfe, on the other hand, is

determined to provide a definition once and for all in his book *What is Posthumanism?* Unlike

Peterson's more reductive explanation, however, Wolfe suggests that many of the values

established under humanism are admirable and that "the point is not to reject humanism *tout*

court" (xvi). Instead, Wolfe emphasizes that "the nature of thought itself must change" (ibid).

He provides the following examples:

> Most of us would agree that cruelty toward animals is a bad thing, or that people
>
> with disabilities deserve to be treated with respect and equality. But as we will
>
> see, the philosophical and theoretical frameworks used by humanism to try to
>
> make good on those commitments reproduce the very kind of normative
>
> subjectivity … that grounds discrimination against nonhuman animals and the
>
> disabled in the first place" (xvii).

 His point is that as long as humans (perhaps white, Western, male humans in particular)

consider themselves the agents of justice among all beings, they have retained their identity as

master over any possible "other." In this sense, a shift in values is not enough. One must

consider new forms of cognition and communication in order to undo the grip of humanism to the extent that one can.

In this way, the rhetoric of digital food media reflects a posthumanist framework. To begin with, shifts in the ways that we think and know can take place through valuing other sensory perceptions. In doing so, we might identify with the viewpoint of the marginalized other. Just as scientists and scholars in history used the senses to accomplish the marginalization itself, the senses can be used today to undo the process. For example, in the introduction to the collection *Empire of the Senses,* David Howes provides a historical hierarchy of cultures based on their sense values:

> Natural philosophy considered non-Western peoples to be mired in the
> 'animalistic' world of the lower senses. In fact, in the nineteenth century the
> natural historian Lorenz Oken went so far as to postulate a racial hierarchy of the
> senses: at the bottom was the African 'skin-man' who emphasized tactility,
> followed by the Australian 'tongue-man,' the Native American 'nose-man,' the
> Asian 'ear-man,' and, at the top, the European 'eye-man.' (11)

While this categorization is an example of culturally perpetuated racism, it also reminds readers that different cultures may value the use of one sense over another. Howes suggests, for example, that the Dogon of Mali communicate mainly through "sound and odour," while in Papua New Guinea, Freud's associate Wilhem Fliess might have successfully applied "his theory of a 'nasal-genital reflex'" (15).

In this same collection, Oliver Sacks includes an essay entitled "The Mind's Eye, What the Blind See." Here, Sacks describes how the encroaching, and eventually total, blindness of John Hull led to his becoming a "whole-body-seer' … shifting his attention, his center of gravity, to the other senses" (26).

These two examples alone demonstrate how we might begin to consider the posthumanist support for racially marginalized and disabled persons from their own "perspective," rather than viewing them as the other. Through the development of digital tools, users have the capacity to concentrate communication through a broader variety of senses, even over long distance, diminishing our longstanding dependence on the eyes alone. More importantly, users can learn, through digital impersonation, to identify with those who are different or in need, not through gazing at their images, but through the physical experience, however minimal, of their frame of reference.

Ulmer reminds us that this type of impersonation works as a *punctive* rhetoric by which users need only to take on a few key metonymic details – likened to Derrida's detachable *gram* – "that allow the *anecdotal life of a … person … to become an aphorism of thought*" (149 [original emphasis]). In other words, the act of impersonation becomes the process by which digital citizens think and reason, based on what they feel. Ulmer says, "In *impersonation*, we have the figure that is to electrate dialogue what conversation was to *Phaedrus*" (ibid). By experiencing our environment through senses other than visual, we also experience stepping out of a traditionally humanist and Western logocentrism in communication.

An additional example of the emergence of a posthumanist framework within digital communication is the game *Dog's Life* for the PlayStation 2. In his essay "New Tricks," Tom Tyler explores how a simple game can teach humans to identify with the experiences of animals:

> [The] game requires its players to confront a longstanding and deep-seated cliché, a distinct strain of anthroponormativity that quietly but persistently discourages perceptual identification with other forms of animal life... [T]his game engages its participants in the process of play, evoking modes of affinity and involvement that are unbound by questions of species identity. (66)

In this game, the player follows Jake the dog as he travels through town solving mysteries. Players can "switch to 'Smellovision' and truly step into Jake's world" whereby "the environment is depicted as if through a wide-angle, fisheye lens, and colours become noticeably muted … [and] players are now able to 'see smells,' which are represented as brightly coloured clouds" (ibid). This game exemplifies how digital tools not only call attention to sensory experiences, such as smelling, that often go unnoticed, but also how impersonation can be used to identify with other animals across the boundaries of species.

Based, then, on explications of posthumanist ideology such as Wolfe's and Peterson's, an electrate rhetoric of multi-sensory experience contributes to the emergence of new paradigms for reasoning that require connecting and identifying with other subjects. Francesca Ferrando describes it thusly:

Posthumanism is a philosophy which provides a suitable way of departure to think in relational and multi-layered ways, expanding the focus to the non-human realm in post-dualistic, post-hierarchical modes, thus allowing one to envision post-human futures which will radically stretch the boundaries of human imagination" (30).

In addition, Ferrando reminds us that the role of posthumanism is not just to establish new frames of reference, but to acknowledge those that already exist. She quotes Heidegger as stating, "Technology is therefore no mere means. Technology is a way of revealing" (29).

Ferrando highlights the use of technology as the central similarity among a variety of posthumanist schools of thought, including "transhumanism, … new materialisms, … antihumanism, … posthumanities, … and metahumanities" (28). She highlights Haraway as a connector of the two broad tenets whereby, on one hand, the use of technology allows us to "overcom[e] human primacy [and] offer a reconciliation of existence in its broadest significations" (29). On the other hand, epitomized by Haraway's concept of the cyborg, technology becomes "a trait of the human outfit" (28). This latter description refers to the concept of digital prosthesis, which Hayles explains in *How We Became Posthuman*, as a continuation of the view of "the body as the original prosthesis [and therefore eliminates any] essential demarcations between bodily existence and computer simulation" (3). In the same way that using technology allows us to overcome differences among species, this use allows "[f]using cybernetic device and biological organism, [thereby] violat[ing] the human/machine distinction" (84). In this way, machines are seen as equivalent to nonhuman animals in that they can offer

humans a different perspective of reality than that which has persisted since the Ancient Greeks established formal methods of reason and categorization.

Even the extreme cases of a user "tasting" food through a computer screen, then, or "smelling" an environment the way a dog does through the use of a digital game, provide today's posthuman and cyborg subjects an expanded frame of reference whereby they can begin to associate the memories and anticipations of their own intimate sensory experiences with those of others. In doing so, the boundaries established through categorization, colonization, racism, sexism, classism, animal abuse, pollution, as well as through financial, geographic and temporal limitations, might begin to dissolve and new understandings of community and collaboration can begin to take shape. In this way, an examination of food media online becomes a study of how today's digital citizens are forming relationships, both global and personal, in ways that have not been done before.

By applying these theories of embodiment, with an emphasis on the five senses, to digital designs in food-related media, this dissertation will demonstrate the emergence of the following cultural situations as examples of Ulmer's vision of electrate culture: people become information; the "Society of the Spectacle" is subverted; communication grows more visceral and more immersive; emotional rhetoric, at times, exceeds the power of words; and digital communication provides not only artificial memory, but an artificial unconscious, which includes emotion and desire.

 I argue that the stimulation of all five senses is required in order to manifest these many phenomena fully and, therefore, that food blogs, sites, posts, and videos are valuable artifacts for

analysis in what could be considered a work of cyborg anthropology. The explosion in the popularity of such sites stands as further evidence of their relevance to communication in the age of electracy.

Indeed, it is this engagement of our bodies and emotions within our digital communications that will allow the depth of affinity and identity necessary to address the issues of a global society. Ulmer argues in *Internet Invention* that conduction, the logic of poetry, which acknowledges the power of subjective sensory experience, provides the necessary element that is often missing from today's rhetoric. He refers to Wittgenstein, "who once said that even if we could solve all the technical or scientific problems, we would still leave the human question untouched" (1). This project examines how the human question is increasingly present in digital conversations through the particular technique of sharing taste and smell experiences and all the sensations that accompany them. Further, through the examination of food-based digital media, this project seeks to highlight the emergence of new ideological apparatuses specific to the era of electracy.

Ulmer's method of applied grammatology addresses three basic apparatus shifts: first, the shift in communication technologies from literacy to electracy; second, the change in ideological institutions from the academy to the internet; and third, the emergence of new subject formations, which Ulmer does not name, but which I argue can be called posthuman or cyborg subjects based on the behaviors and values he suggests are increasing in electrate culture. These shifts coincide with the inclusion of the poetic image in communication, demonstrating how emotion and concrete experience function as the basis of digital era logic, rather than the traditional analytic form of reasoning. While this defies the long established concept of the

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mind-body split, it supports theories of embodied cognition found in McLuhan, Damasio,

Hayles, Turkle, and Stone. Extending these theories, scholars such as Howes, Korsmeyer, and

Lee argue specifically in favor of the stimulation of the five bodily senses as a means to expand

communication, cognition, and identity. Following these ideas, the three major chapters of this

dissertation will address the emergence of each new apparatus as it applies to the inclusion of the

chemical senses in digital media.

<u>Outline of Chapters</u>

<u>Chapter Two: Subject Formation. Guess Who's Coming to Dinner: How interacting with online
food media reflects the emergence of a posthumanist cyborg identity</u>

Chapter Two locates the beliefs and behaviors of a new type of ideological subject – the

posthuman, sometimes referred to as the cyborg – within food-based digital media specifically

because these media reflect clearly the "intimate experience with boundaries, their constitution

and deconstruction" (Haraway 314). Digital food posts constantly toy with the question of how

effectively the entire bodily sensorium can be engaged in the communication of experience

beyond physical presence and even, at times, beyond language. As artifacts of the electrate era,

these food posts problematize traditional categories of tangibility, body, machine, perception,

hallucination, and even species – since nonhuman animals make up a large part of our food web,

their experiences also become redefined. By calling traditional categorization methods into

question, these sites exemplify the ironic values of Haraway's cyborg. Similarly, Wolfe's

description of the posthuman subject reflects Haraway's cyborg in terms of rejecting the notion

of closed categories or boundaries between beings. Basing his definition on second-order systems theory, Wolfe points out a key characteristic of the posthuman, which is "openness from closure" as a means of interacting with the environment (15). This means that, while a system, such as the human body, is autopoietic and self-sustaining, it must remain open to the environment in order to transmit various types of input and output. Therefore, no system is completely closed off. This is in contrast to traditional classifications and taxonomies that ignore or downplay the inevitable interdependence of all things. Based on Haraway's and Wolfe's principles of the dissolution of social and ontological boundaries, this chapter will examine videos and viewer comments from the YouTube series *Cooking With Dog* in order to demonstrate the emergence of new types of posthuman and cyborg kinships among humans, objects, and nonhuman animals.

In addition to demonstrating this posthumanist notion of an ontological reordering of beings and their relationships, Chapter Two will also address the cyborg phenomenon of the integration of bodies and machines. Today's citizens increasingly participate in new media as a phase of the eating or cooking process. From locating restaurants, to researching and following recipes, posting photos of meals, posting recipes, and rating or reviewing one's dining experience, the practice of extending proximal sense perceptions beyond the body through the use of digital tools demonstrates a new type of prosthetic application. Like the use of a microscope or ultrasound device, or even of language itself, this use of food-related digital media increases the number of ways we can connect to and embody information about our environment, thereby reshaping and expanding the methods by which we think and reason. Through what Hayles refers to as *virtual*

embodiment, and Wolfe calls *embodied enaction*, the virtual circumstances of the website can engage the bodily senses – even those of taste and smell – thereby establishing a concrete, physical, personal – and frequently emotional – response that redefines how we can gain knowledge of people and objects in the world. Haraway claims that through this cyborg practice of "restructuring the boundaries of daily life, in partial connection with others in communication with all of our parts… science and technology [become] means of great human satisfaction" (316). In other words, by finding innovative ways to connect our senses to the world through technology, we can expand our physical capabilities to feel, experience, and learn.

Chapter Three: Technological Apparatus. There and Back Again: How cognition and communication return to the body through the digital extension of the senses

The multisensory engagement with virtual information leads to Chapter Three's focus on the emergence of digital designs that allow users to incorporate taste and smell into their communications. Such designs demonstrate a variety of theories supporting the embodiment of reason in physical experience and emotion, as well as the degree to which our sensory perceptions can be socially and technologically constructed. Damasio, for example, names the *body loop* to explain how rational decision making is a process that begins with a physical experience, such as a rush of adrenaline, that sends messages to the brain to create emotion, which then influences the thought process, "thus placing the body within the chain of operations that permit the highest reaches of reason and creativity" (200). Similarly, Damasio names the *as-if body loop*, which is a similar process except that it reverses the direction of cause and

effect, beginning with an image in the brain and leading to a physical reaction. Both of these situations can occur when digital tools are used to stimulate taste and smell, the senses that are most deeply connected to our biological processes and that maintain powerful connections to both emotion and memory, thus supporting Ulmer's proposition that logic and rhetoric in the digital age function through collective moods and bodily reactions more so than through the traditional manipulation of patterns in language. McLuhan also addresses the cognitive, emotional, and social effects of the stimulation of the physical senses, specifically through electronic means. In "Inside the Five Sense Sensorium," he explains how the stimulation of one sense can produce an effect on other senses. For example, he suggests that while television creates a *sensory impression* on the visual sense, it produces a *sensory effect* on the tactile sense through the viewer's required participation in connecting the pixels that make up the televised image. This helps to explain how a digital representation of a meal can incite a viewer's active participation, stimulating the senses of taste, smell, and touch, even without the actual presence of the dish and, in turn, can evoke both memory and emotion, the necessary components of Ulmer's electrate rhetoric. Further biologists Humberto Maturana and Francisco Varela argue that one's sensory perceptions affect one's cognition of the environment and vice versa, so that by increasing or reducing the regular use of one or more senses, beings have the ability not only to change their understandings of the worlds they live in, but also to create shared spaces based on remembered or anticipated sensory effects.

Focusing on the work of Damasio, Maturana, and Varela – along with David Howes and Jinsop Lee, scholars working to advance what Howes calls "the sensual revolution" (1) – Chapter Three

will examine actual digital inventions that stimulate taste and smell directly, such as Nimesha Ranasinghe's Digital Taste Interface and the U. S. Army's Future Holistic Training Environment Live Synthetic. While several inventors have pursued this goal throughout recent history, and while these current designs are still very much in their infancy, they not only demonstrate the growing interest in incorporating the chemical senses into digital communication, they also indicate the shift toward an increasingly accepted paradigm of embodied cognition and reason. Meanwhile, at the same time that many digital designers are building tools to achieve successful computer-generated tastes and smells that can trigger a *body loop* to the brain, masses of computer users everywhere have already begun practicing methods to create taste and smell images in the brain that can trigger *as-if body loops* to stimulate physical reactions in the body, similar to Barthes's punctum, that then invoke personal emotions that make meaning. These methods can be found on blogs, such as *Dinner, a Love Story,* YouTube travel videos, like *Migrationology,* and even in personal posts on social media sites like *Facebook.* This chapter, then, will address both the intentional invention of food-based communication techniques by scholars in the field of Human Computer Interaction as well as the emergence of such methods among typical users.

Chapter Four: Electrate Rhetoric and the Institutional Apparatus. I Would Like to Thank the Academy: How entertainment-as-pedagogy allows performance, mood, and discourse to extend the lessons of the first schools.

Chapter Four will begin with a reminder of Ulmer's argument based on the grammatological trajectory, which states that while the first institutional apparatus shift moved social authority from the church to the school, the current shift is headed away from the school and into the realm

of entertainment. Ulmer proposes that new methods for learning and communicating, which he bases on the effects of art and poetry and refers to as *image reason*, are made increasingly available through the technologies of television, film, and the internet. These methods expand our cognitive capabilities, particularly through the engagement of our bodies and emotions, sites of knowledge suppressed during the literate era in order to privilege the abstract codes of language.   Food experiences are especially significant here because the overall direction of digital rhetoric, and thus *image reason,* is to first turn inward, seeking subjectivity, feeling, and memory to use as tools for connecting with other users on a global scale. As proven relevant by numerous works of literature, cinema, and art, particular foods invoke emotion while often representing familial and cultural traditions. Experiencing these traditions through the work of art pulls the viewer toward a middle space where some emotional identification may be possible. This space is what Ulmer describes as chora. In this space, we enact new understandings of ourselves and others. That digital media provides users innumerable opportunities to vary and to share these spaces makes it infinitely rhetorical.

In *Politics*, Aristotle establishes the position that the intellect naturally rules over the appetite and, consequently, justifies the power of man over woman and master over slave, adding that "'it is harmful to both if the relation is equal or reversed'" (Ulmer *Internet Invention* 305). Ulmer suggests, though, that with current tools that allow global communication through imaging, we are in the process of, not only flattening but, flipping the mind-body hierarchy and shaping our communications precisely through our physical and emotional encounters. For example, rather than traditional categories created to classify objects and elements in the world by their essential

features, ("the original function of metaphysics" (29)), Ulmer argues in favor of the

"antidefinition," by which one *performs* his or her understanding of the world (38). He quotes

Georges Bataille as stating, "'A dictionary's sole purpose is the imposition of form and

homology, definition fixes objects in thought, extracts them from the world and pins them to a

page'" (39); meanwhile, the antidefinition classifies "by heterogeneity" (ibid), basing our

knowledge of objects and elements on personal experience. This, Ulmer reminds us, has been

the practice of "the vanguard artists of the nineteenth and twentieth century," who sought to

enact and feel concepts with their bodies (38). Indeed, such artists as Matisse, Picasso, Neruda,

Proust, and even Warhol have produced a plethora of food-related paintings and writings as

evidence of their efforts to experience the world through the appetite itself, seeking "direct

access to a supposed immediate flow of experience" (ibid). In this way, it has been the artists,

more so than the scholars of rhetoric, who first contributed to the emergence of electracy. In

accordance with this suggestion, Chapter Four will reference artworks documented in Mary Ann

Caws' *The Modern Art Cookbook*, which demonstrate how the performance of both artistic and

actual consumption of foods can blend in such a way that the differences between them dissolve

leaving life and art inseparable.

This idea of defining events and objects through the sensations of the participant rather than the

essence of the observed "thing" is a direct challenge to Aristotle's logos, by which we are

expected to prove "a truth, or an apparent truth" (*Rhetoric* par 12). Similarly, pathos takes on

new shape in electracy as digital tools offer users the ability to design entire atmospheres and

immersive sensory experiences both online, as well as through the ubiquity of computing

throughout our day-to-day activities. This relates to the antidefinition because, as Ulmer explains, "To write with images [and other digital media] requires an understanding of the atmosphere and aura evoked by things, just as to write with concepts requires knowing the meanings of terms" (56). In this sense, pathos is no longer a solely verbal technique, but one that might express and impart meanings felt through bodily experience, a phenomenon Ulmer names *funk* (303). Emotion, though, does not stem from sensory experience alone; it is also shaped by cultural and social interactions. These interactions take place within a variety of discourses, such as family, career, school, and entertainment. The use of discourse to hail users is the foundation of ethos and, like both logos and pathos, it has taken on new shapes through digital technology. While discursive communities have been traditionally bound by physical location and face-to-face interaction, online communities take shape through multisensory digital imaging. In this way, a community's relationship to food becomes a source of ethos that can be shared globally. By interacting within these online food-based discourses, users grow increasingly aware of the role of bodily experiences, such as those related to flavor, health, or pleasure, in identifying with one another and challenging conventional values. These three rhetorical techniques – logos, pathos, and ethos – will be examined in their electrate constructions – performance, mood, and discourse – located in the television series *Parts Unknown;* on food-based websites and blogs, such as *Down Home with the Neelys, Divas can Cook,* and *Soul Food Connection;* in films, such as *The Gold Rush* and *Big Night;* in the Martin Scorsese documentary *ItalianAmerican*; and even on *Twitter* and other interactive sites that participate in the rhetorical ecology of flavor messages.

To reiterate: <u>Chapter Two</u> will address the current shift from humanist to posthumanist subject formations in digital society as coincidental to the emergence of new tools through which we can now better extend and appreciate those sensory perceptions neglected in the former paradigm. <u>Chapter Three</u> is concerned with the technological apparatus itself: the structure of communication through which the smelling, tasting subject is interpellated, or hailed. In other words, the current technology and its uses that allow for a synergistic combination of both abstract and embodied knowledge in order to increase and expand the roles we might play in society. <u>Chapter Four</u> will elaborate on the relevance of food-related digital media in terms of Ulmer's call for the invention of a new rhetoric. As these media exercise modes of thought and expression not practiced in school, they demonstrate the increasing influence of the field of entertainment as an institutional apparatus. When such modes are applied to the traditional rhetorical elements of logos, ethos, and pathos, they extend cognition, not only throughout the body, but also across social and cultural systems. As such, the digital engagement of the five senses, particularly taste and smell, become the key to achieving Ulmer's purpose.

<u>Conclusion: Overview and Recommendations. What a Tangled Web We Weave: How content areas, such as food studies, film studies, and composition can be synthesized in order to activate embodied thinking and writing.</u>

Finally, this dissertation's conclusion will suggest how today's scholars and teachers – still practitioners of literacy – might harness the power of electrate rhetoric in order to serve socially constructive purposes that defy the society of the spectacle and support a state of social well-being. As examples of electrate rhetoric, food media connects us to a variety of relevant issues: political, environmental, artistic, moral, scientific, cultural, and historical. The incorporation of

flavor and performance into the analysis of such issues provides new viewpoints and purposes for traditional studies. In addition, personal memories evoked by food's smell and taste, even imagined, connect us to the discourses of family and community in ways that often allow us to identify with one another more intimately. Such connections help to diminish the racial, gender, and class boundaries that often stand in the way of social progress. Finally, by learning and communicating with the entirety of the physical sensorium, each posthuman citizen can experience more details of his or her environment than in the past. By combining physical experience and intimate human issues with the larger needs of society, digital food media expands the posthuman's abilities to know the world, to know herself, and to enhance and advance both.

CHAPTER TWO- SUBJECT FORMATION

GUESS WHO'S COMING TO DINNER: HOW INTERACTING WITH ONLINE FOOD

MEDIA REFLECTS THE EMERGENCE OF A POSTHUMANIST CYBORG IDENTITY

Posthumanism

In the digital age, citizens connect globally through mass media and the internet, existing in an

interchangeable, networked atmosphere. This model of interconnection continues at the level of

the individual, as well, whereby each one of us can be understood as "an amalgam, a collection

of heterogeneous components, a material-informational entity whose boundaries undergo

continuous construction and reconstruction" (Hayles *How We Became* 3). This combination of

moveable parts describes a posthumanist identity whereby knowledge is formed across and

throughout the subject's physical and technological components rather than in the mind alone, as

humanist philosophers have long argued. Because the posthumanist model of identity views

cognition as distributed in this way, one's bodily senses play an important role in experiencing

and interpreting worlds. Further, since bodies and technology are so often connected, digital

productions that involve not only sight, sound, and touch, but also the senses of smell and taste

are increasingly valuable. Such productions, which include videos and websites about food, are

important not just because they involve the entire sensorium in the communication process; even

more significant is the ability of these sites to engage participants at a visceral level, triggering

contact between sensation, memory, and mood. In doing so, they inspire new modes of rhetoric

specific to the digital age. These modes supplement traditional Aristotelean rhetoric – which

effectively exploits the abstract, analytical thinking privileged by the humanist paradigm – by extending persuasive influence onto those who think through their connections with objects and other living things. In addition, this posthumanist knowledge network includes nonhuman animals as sources of valuable interaction and information. The appearance of these animals is also increasing in digital media, even in productions related to food and eating, since this is a trait shared across species. As an example, the Japanese YouTube program entitled *Cooking with Dog* demonstrates the influence of food media over the mood of its broadly diverse participants in order to shape thought and behavior toward an overall sense of compatibility, which then opens up new opportunities for collaboration and public problem solving.

The posthumanist subject, despite its name, may have existed before the advent of humanism, according to Cary Wolfe (xv), but it has only begun to emerge fully since the arrival of the digital age because of the surge in opportunities for users to connect with information and machines and, through machines, with other living creatures. These connections reflect the relational – rather than essential – quality of the digital era subject, one that is defined not by what it is made of but by how it can locate and correlate to the experiences and emotions of countless other subjects. Donna Haraway calls this act "coalition – affinity, not identity" (*Simians* 155). In this sense, posthumanism is more than what it sounds like, more than a reaction against humanism – against the anthropocentric, ethnocentric, logocentric view of the world that has been perpetuated since the invention of literacy, whereby Western man has topped a variety of hierarchical taxonomies and whereby linear reasoning has represented the most effective means of both thought and persuasion. Indeed, posthumanist theorists do seek to locate

and subvert such hierarchies in recognition that ontological boundaries dividing humans and other beings are dissolving with the help of new technologies, but this is merely the starting point to the shift in our identity and the model by which we view ourselves and our relationships, a shift based not on biological adaptation but instead on an adaptation in "the nature of thought itself" (Wolfe xvi).

Beyond this pursuit to overturn a broad range of traditional humanist ideals, posthumanism is also about our articulations with machines and other life forms. It is a view of the individual as an information system, made up of smaller systems (biological, cognitive, emotional) that can connect and disconnect to other figures in order to participate in larger systems (social, cultural). For a simple example, the human nervous system includes organs for hearing. These organs can be conjoined with a machine, such as an i-pod, which allows them to process a recorded song. This expands the size of the nervous system by increasing the circuit through which the information flows. Then by experiencing the recorded song, the individual becomes part of an audience, a cultural system. Through repeated listening, the individual might identify as a fan of the song or musical group or even as a member of a community of followers, connecting with other fans in a social network that could include face-to-face interaction or that may take place entirely online. In such a way, the posthumanist subject is an assemblage of biological parts that can utilize digital technology to interconnect with a variety of other biological and electronic parts, almost constantly changing and rearranging how it can be identified.

Ulmer likens this description of physical, social, and cultural interchangeability made possible in the digital age to Derrida's "gram," which redefines the traditional semiotic relationship between

signifier and signified into a detachable coupling that can be infinitely changed. In terms of posthumanist identity, Ulmer claims that "[t]he detachability and remotivation of parts are the key" (*Internet Invention* 149). Through this process, individuals not only create their own changing and changeable worlds according to the contextualized knowledge formed through their own perspectives, but they are also more capable of expanding their perspectives through the process. The situation necessary to enact this practice is coined by Wolfe as "openness from closure" (xxi), meaning that we pick and choose the ways in which we connect to our highly complex environments, thereby shutting out other options. This practice of picking and choosing is called closure. By increasing the degrees and details of this practice, however, as in the song example above, we actually expand the connections we make, thereby increasing our openness to our environments, expanding our consciousness, and reshaping our worlds. While this process is vastly different from the prolonged biological adaptations of Darwinian evolution, many of today's scholars argue that such cognitive expansions are the key to posthumanist survival (Hayles; Haraway; Wolfe; Ulmer).

  With this in mind, we can see how human beings require technology – including language, writing, and even culture – in order to make the connections necessary for problem solving and change. N. Katherine Hayles refers to this as *technogenesis*, which she explains most simply by the statement that "we think through, with, and alongside media" (Hayles *How We Think* 1). Similarly, Wolfe describes "the embodiment and embeddedness of the human being in not just its biological but also its technological world, the prosthetic coevolution of the human animal with the technicity of tools and external archival mechanisms" (xv). Haraway refers to such

embedded subjects as cyborgs who, because of their position within, rather than above, their environment are "not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints" (154). Such descriptions emphasize how posthumans couple with contemporary technologies in order to create new experiences in the world and new presentations of themselves. Such innovations reflect both the subversion of liberal humanist ideals as well as the expansion of possibilities in thought, communication, and expression.

In addition to opposing humanist principles and revealing practices of articulation, several definitions of posthumanism also highlight our similarities across species. By anchoring the cyborg subject amidst the ubiquitous presence of not only technology but also of nonhuman animals, Wolfe and Haraway remind us of this third crucial identifier of the emerging digital subject: its materiality, its connection to information through the body, its first-hand use of the five physical senses to gain specific and subjective knowledge the way other animals do. Certainly, the tradition of empirical evidence is based on sensory observation; however, the subjectivity of "sensuous experience" had been increasingly suppressed over past centuries in favor of "generalizable" and quantifiable measurements made possible by the manipulation of laboratory instruments (Roberts 110). Ironically, the age of cyberspace and virtuality has brought about a renewed emphasis on embodied cognition through new audio-visual technologies that reincorporate and combine users' senses of sight, sound, and even touch for processing and retaining information. With this increased participation of the body in communication, even the chemical senses of taste and smell – discounted since Aristotle due to

their inevitable bias (Korsmeyer, *Making Sense of Taste* 20) – have received fresh attention in a variety of media. Not only is the topic of food playing a greater role in entertainment industries such as movies and television, but internet users by the millions search, blog, and post about cooking and eating ("43 Most Popular"), thereby extending our most intensive taste and smell experiences from the confines of the kitchen even into our virtual worlds. The greater involvement of the chemical senses in our increasingly frequent digital interactions allows us an opportunity to communicate and think in ways other than through the abstract codes of language and writing and, in this way, reminds us of our equivalence to other species. In fact, early cybernetic models, designed in an attempt to compare human cognition to machine processing, were often robots that simulated the behaviors of insects, tortoises, and rats, thus validating comparisons between humans and machines as well as between humans and other animals (Hayles *How We Became* 50). This leveling of creatures and objects revealed by systems theories in cybernetics provides a new lens through which the anthropocentrism of centuries of humanist theory begins to lose its footing. This understanding of equivalence among all beings based on their interdependence within various systems as well as on their shared materiality has become the foundation of the emerging posthumanist subject identity.

Posthumanism and Food Media

In order to demonstrate these new values, Ulmer suggests we practice new rhetorical techniques such as performance and imaging, acts that highlight the body and incite emotional, rather than logical responses. Digital media provides the tools to practice such techniques, and of the infinity of digital artifacts online available for examination, posts and sites about cooking and eating offer some of the most appropriate examples of this type of rhetoric specifically because of their focus on the very visceral experiences of taste and smell. This focus takes place in a number of ways. First, while online presentations of tastes and smells are still currently limited to texts and images, the presence of actual food is inevitably necessary somewhere within the process of producing of such sites, and actual cooking and eating are very often the result of viewers' participation with these sites. In this way, the physical consumption of various ingredients and dishes frequently coincides with the regular interaction with their virtual counterparts. Further, even when viewers don't respond by cooking or eating the food described online, their chemical senses can be stimulated through the memory or imagination of the described food experience. In addition, by sharing descriptions of flavors and fragrances digitally, composers of food-based posts and websites encourage the perception of environments and situations through means that both supplement and modify our dependence on the visual. As such, these sites not only answer Ulmer's call for compositions that communicate through the entire body, but they answer Derrida's, as well. Ulmer interprets Derrida's claims in *Of Grammatology* as the pursuit of "productions written within the enframing of a sensorium reorganized to reflect the contact qualities of the chemical senses" (Ulmer, *Applied* 98) with the

purpose of revealing "a mode of writing … that is designed to overcome the logocentric limitations of discourse" (5). Two millennia ago, Aristotle – as he formulated theories that became foundational to humanism – argued that the distance senses allowed for objectivity, and that sight was the best sense for processing abstract concepts in the mind. Contrarily, Derrida and Ulmer seek a means of expressing subjective concepts processed through the concrete experiences of the body. In this effort, the chemical senses of taste and smell are most effective. Ulmer explains: "[T]he analogy, fundamental to philosophy, is between the sensible and the intelligible domains, with thought conceptualized in terms of sight and hearing. Derrida's move is simply to hypothesize a thinking, an intelligibility, that would function in terms of that part of the sensible excluded from consideration – the chemical senses" (34). By perceiving the world through its tastes and smells in addition to, or even sometimes in place of, its sights and sounds, we perform our multi-sensory posthumanist identities. In addition, the use of digital technology to create and express these identities allows us to make new combinations of ourselves, or as Haraway calls them, "many-headed monsters" (*Simians* 154), which we may have never enacted before. Because of the combinatorial and paradoxical nature of cyborg identity, Haraway offers irony, in addition to Ulmer's performance and imaging, as an appropriate tool of posthumanist rhetoric: "irony is about contradictions that do not resolve … about [both] humour and serious play" (149). A quintessential example of a digital artifact demonstrating the emergence of posthumanist cyborg subjects performing an ironic rhetoric is the YouTube cooking series entitled *Cooking with Dog*.

<u>Similarities across Species</u>

Cooking with Dog highlights our ability to communicate our similarities through food – a necessary common denominator among all biological beings – by calling into question traditional notions of species, language, culture, and even race. Through the use of video and voice-over recording, the producers of this series have created the ironic figures of Francis and Chef. Francis is the show's host. He is a poodle who lives in Japan and speaks English with a French accent. Chef is a female cook who does not speak during demonstrations and has not revealed her name since the show's start in 2007 but, through enacting the narration of the host, models intricate cooking methods that result in whimsical Japanese dishes, the appearance and textures of which incite physical and desirous reactions in viewers along with insight, confusion, and even controversy.
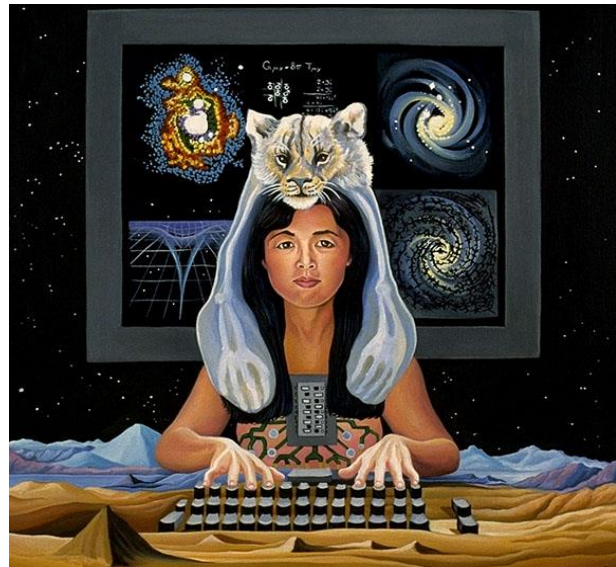
Figure 1: 1a. Francis and Chef; 1b. Haraway Cover Art

Figure 1a Source: *Cooking with Dog.* Still image. *Foodiggity.* Web. 5 Mar. 2016.
Figure 1b Source: "Cyborg Manifesto." *Pinterest.* Digital Image. Web. 5 Mar. 2016

The team of Francis and Chef perform the cyborg identity of a type of two-headed chimera: one

acting as the voice, the other the hands. Neither can complete their task alone. In this way, they

make up what cybernetic theorist Humberto Maturana calls a *composite entity*: "Systems as

composite entities have a dual existence, namely, they exist as singularities that operate as simple

unities in the domain in which they arise as totalities, and at the same time they exist as

composite entities in the domain of the operation of their components" (12). In other words,

while Francis and Chef are autopoietic systems in and of themselves, it is through their

interacting together that they become something else and, arguably, make fuller use of their

capabilities. What they become is a figure that directly reflects not just the posthumanist value

of articulation, but even more specifically of "embodied, cross-species sociality" (Haraway,

When 4.) Conjoined in this way, they revolt against the traditional image, not just of the

autonomous human but specifically, of the individual Western male as measure of all things.

Haraway suggests that, "perhaps, ironically, we can learn from our fusions with animals and

machines how not to be Man, the embodiment of Western logos" (*Simians 173*). From this

perspective, the presence of Francis in the kitchen is not just a clever technique for creating an

unusual cooking show. Francis's presence, along with Chef's, reminds viewers of species,

gender, and race-related stereotypes born out of Western logos and provides them the

opportunity, by posting comments, to address such notions among themselves as observers, thus

sparking the evolution in thought that brings about a new subject formation on the viewers' side

of the interface, as well. For example, a comment in one conversation thread for the show states,

"Get that mutt down off the counter put his butt down on the floor," and another says, "That's nasty dogs don't belong around food its [*sic*] nasty dog hair will get in the food and they stink" (Romano). Viewers such as these demonstrate traditionally anthropocentric opinions about human-dog relationships and where in a home a dog "belongs." This perspective maintains the divide between humans and other animals through spatial segregation and derogatory remarks that seem to reflect fear or disgust of this human-dog proximity. Haraway suggests that the close presence of such "Others to Man" as "gods, machines, animals, monsters….. women, servants and slaves…" have a "remarkable capacity to induce panic in the centers of power and self-certainty" (*When* 10), thereby threatening the dominant position of the humanist subject. It is particularly because he is sitting close to the humans' food that Francis offends certain observers so strongly. Our food is that product in our environment with which we are most intimate, consuming it into our bodies and tasting it with our mouths. The mouth, in many ways, is still considered out of bounds in terms of connecting with nonhuman beings. Haraway, herself, could be accused of attempting to incite the same level of discomfort when describing how her "Australian Shepherd's quick and lithe tongue has swabbed the tissues of my tonsils with all their eager immune system receptors" (*When* 3). Just as Haraway writes her subversions to anthropocentrism without hesitation, Francis and Chef perform theirs.

 Even more intriguing are the responses to such remarks in defense of Francis, which may or may not be read as expressions of posthumanist values. Indeed, even the most passionate defender of animal rights may still be practicing her values from a point of view that recognizes only a dog's dependence on a person for fair treatment, care, and instruction but fails to

acknowledge the person's dependence on the dog and, further, fails to acknowledge how people and nonhuman animals are able to mutate into new subjects when articulated together in specific circumstances. For example, Haraway critiques the character Elizabeth Costello from J.M. Coetzee's novella *Lives of Animals* for giving an animal rights lecture full of "universal claims" and "searingly genetic, category-sated moral demands" (*When* 81). In other words, while this character defends animals, she does it from the conventional perspective that human rights and responsibilities include stewardship of the environment, and hence the management of the destinies of other living beings. In this way, the character only perpetuates anthropocentric humanist stereotypes. In the same manner, Wolfe's discussion of Sue Coe's book *Dead Meat,* which depicts the horrors of slaughterhouses through sketches and paintings, refers to its lack of "iterability" (157). What he means by this is that the heavy-handedness with which the artist depicts both animals and workers as a means of criticizing agribusiness and factory farming betrays a "logic" of "abstraction, coding, and seriality" that composes a single message and removes any opportunity for alternative interpretations (156). Wolfe goes on to suggest that Coe's work is motivated by the same "carnophallogocentrism that subordinates woman to man and nonhuman animals to both" (157). In both critiques, the claims of Costello and Coe are acknowledged as being in support of animal protection; however, both claims are derived from a liberal humanist viewpoint of human control and animal subordination and otherness.

Likewise, many comments from *Cooking with Dog* viewers, even those with the best intentions, reflect the same traditional hierarchies. For example, one response to Francis's critics states, "Its [*sic*] her kitchen, she can let her dog sit where she wants" (Romano). The phrases "her dog,"

"she can let," and "where she wants" clearly support a master-property relationship between Chef and Francis, rather than what Haraway calls "companion species." Another defender explains, "Poodles have hair, not fur, so they don't shed or molt, so this dog will only get its hair in the food as much as the human would" (ibid). This comment sits much closer to the posthumanist end of the worldview spectrum for two main reasons. First, the writer has broken down the category "dog" at least into different breeds by recognizing that Francis is a poodle, which has "hair, not fur," thereby reminding readers of at least some basic heterogeneity among canines. Second, the writer addresses a similarity between Francis and Chef by pointing out that either one is equally likely to get their hair into the food. This move helps to diminish ideas of set boundaries between species as well as ideas of human exceptionalism just as Haraway does when she points out that "human genomes can be found in only about 10 percent of all the cells that occupy the mundane space I call my body; the other 90 percent of the cells are filled with the genomes of bacteria, fungi, protists, and such" (*When* 1). Her point is that humans end up being one possible combination of cells and functions among a profusion of various other combinations, and what humans have in common with other biological beings, as well as other automatic machines, is often more substantial than whatever possible differences we have learned to imagine. Therefore, rather than respond with shock and disgust at a woman and a dog together in a kitchen, we might want to consider what trans-species similarities such a pair demonstrates and how acknowledging those similarities may influence a variety of contemporary practices from pet ownership to scientific research to food processing and more.

In addition, the fact that Francis speaks (with the help of digital voice-recording) and Chef does

not raises ideas about the exclusivity of language and the ability to communicate across species.

Language is a property that has long been considered a primary point of difference between

humans and all other animals. In *Politics,* Aristotle states that, "man is the only animal …

endowed with the gift of speech" separating humans from "bees or any other gregarious animals"

(Book One, par. 16). In the scientific community, Noam Chomsky had argued for decades that

language "is an innate trait of the human species … [and] should be thought of as a branch of

human biology" (Longa 9). Similarly, Ian Tattersall refers to language as the "'human capacity

that so clearly distinguishes our species *Homo sapiens* today'" (1). Such claims reflect a

humanist vision of species differentiation and have been called into question by scholars seeking

to unravel these categorical bounds and open up new opportunities for true empathy and

increased knowledge of our environment and all its inhabitants.

Derrida, for example, considers language from a point of view that is arguably posthumanist in

order to address the common tendency of singling out the human life form from all other animals

under the guise of scientific authority. In *The Animal that Therefore I Am,* Derrida questions,

first, this act of providing the human with its own ontological category and then generalizing all

other beings into one group called A*nimal.* He states, "This agreement concerning philosophical

sense and common sense that allows one to speak blithely of the Animal in the general singular

is perhaps one of the greatest and most symptomatic *asinanities* of those who call themselves

humans" (*The Animal* 41, emphasis in original). Second, he considers how scholars have

defined terms like *speech* and *language* in similarly reductive and biased fashion. For example,

he problematizes Lacan's claim that while animals can only "react" to stimulus, often through the use of voice and gesture, humans can "respond" to ideas (123). Derrida instead suggests that humans are thoroughly trained by both nature and culture so that their *responses* are simply behavioral *reactions* performed by (human) animals in order to achieve or fulfill a need (125). In this sense, the term "respond," as applied to humans, describes an act that is no different than what Lacan suggests nonhuman animals do, and therefore the animal can, indeed, respond.

Even Chomsky, along with Hauser and Fitch, ends up revisiting his own claims in 2002, when he acknowledges that there are, in fact, many heterogeneous traits that make up the concept which we call "language." For example, he mentions that the capacity for vocal imitation is "not uniquely human," and that "[r]ich multimodal imitative capacities are seen in other mammals (dolphins) and some birds (parrots)" (1574). In addition, he points out that, "in the absence of training, nonhuman primates can discriminate sentences from two different languages on the basis of rhythmic differences between them" (ibid). While such examples help Chomsky et al to offer more varied definitions of language faculties that, in turn, acknowledge greater similarities across species, even more significant to the posthumanist viewpoint is their argument that many scientists who claim human exceptionalism in the capacity for speech have not offered convincing empirical evidence. The authors state that "it is surprisingly common for a trait to be held up as uniquely human before any appropriate comparative data are available" (1572). Because of this phenomenon in science, Chomsky et al determine that, until "any claims of uniqueness can be validated … this null hypothesis of no truly novel traits in the speech domain appears to stand" (1574). It turns out that the assumption that humans are the only living beings

who have mastered various language capacities is a construct of humanism through which the appearance of scientific authority has long overshadowed the absence of actual proof. With this in mind, the voice of Francis the dog, with its delightfully choppy Japanese-French accent, is more than merely an element of entertainment. This voice raises the question of what relationships with other animals might be like if we paid closer attention to each other's communicative signals. Further, seeing Chef and Francis together in a kitchen reminds us of the intimate, often familial, bonding that takes place when people make and share food together. The word *companion* stems from the Latin *com,* with, and *panis,* bread, meaning "one with whom we share our bread" (Latham 495). In this sense, Francis and Chef offer us the ultimate example of Haraway's *companion species*.

And while Haraway herself would not likely be amused by the application of a human voice to the dog Francis, as she considers this type of anthropomorphism a "trap" similar to so many pet owners' habits of referring to their companions as their "children," she certainly makes a case for the existence of deep and relevant communication between humans and dogs as well as across many other species. She states, "People can stop looking for some single defining difference between [humans] and everybody else and understand that they are in rich and largely uncharted, material—semiotic, flesh-to-flesh, and face-to-face connection with a host of significant others" (*When* 235). By these terms, the situation of Francis and Chef is not exactly the same playful-but-thoughtless act of anthropomorphism that frustrates Haraway because Francis is not made to imitate his human partner. By taking away Chef's voice during the majority of her performances, while giving voice to Francis, the situation becomes more of a reversal that

directly flips the traditional asymmetrical power relation established through centuries of scientific claims of human superiority that, we are finding out, have often gone unsupported. Here, Francis gives the instructions and Chef performs them. By switching roles, the pair provides a new angle from which to consider the communicative and cognitive capacity of nonhuman animals as well as their often-ignored influence even over some of the very private and mundane moments of human life.

Race and Food Culture

Finally, in the same way that this particular video series raises questions of species, it also addresses gender and race. Haraway, again, passionately argues for increasing the media presence of women, animals, members of nonwestern lineage, and even articulated combinations of life forms that prove ironic. Francis and Chef offer all of these.

The irony of this particular site is obvious from the title alone, which easily provokes debates regarding racial stereotypes. Several comments say things like "That Dog [*sic*] looks nervous," "Cook the dog prob," and "The Dog IS the MEAL. lol" (Romano).

One conversation clarifies the irony of the title with the initial post, "Like cooking with chicken? Um… Maybe rephrase that." To which another poster replies, "I think that's the joke" (ibid).

Another discussion begins, "A Chinese woman and a dog in a kitchen. I don't even need to watch this to know where this is heading," to which agitated readers responded with, "… she's Japanese you racist moron," and also, "Looks like you have no problem eating anything you fat tub of lard" (ibid).

What is happening when viewers interact so openly online in an exchange of hasty responses incited by the performance of the figures they are observing is that they reveal their own observations. In doing so, they are enacting the most fundamental assertion derived from second-order cybernetics, an assertion on which the posthumanist paradigm is largely based. It is that "a statement intended as an observation of the external world is pierced by reflections of the speaker's interior state, including neurotic processes of which the speaker is not conscious" (Hayles *How We Became* 71). This concept, reflexivity, supports the relational, articulated quality of the posthumanist subject by making the observer "part of the picture" (70). As such, the observing subject is embedded within her environment, an environment that can no longer be considered an objective reality. In this sense, the subject is no longer represented by the values of humanism but by something very different. Ulmer describes this as "the experience of being in the world rather than apart from it as its master" (*Internet Invention* 64), and he suggests that this new viewpoint is what drives such impassioned discourse. Michael Wesch, in his presentation entitled *An Anthropological Introduction to Youtube,* interprets such vitriolic online transactions as the result of combining "anonymity" and "physical distance" with "rare and ephemeral dialogue," which can enable "hatred as public performance" (28:56), but which can also lead to "freedom to experience humanity without fear or anxiety" (29:10). Made up of such

characteristics, these online dialogues differ greatly from traditional methods of debate or dialectics, and they become a dynamic part of the website, juxtaposed on the screen beneath the recorded performances of Francis and Chef.

As the participants freely discuss their own observations, they shape and are shaped by the atmosphere of the site itself. Their statements are not logical but emotional expressions and, as such, they exemplify the type of rhetoric emerging in the digital era. While they seem agonistic and trivial at times, these are the types of expressions sought by Ulmer when he discusses "extimacy," which he describes by saying, "the outside disaster or problem [which] forms an image of an interior feeling" (*Internet Invention* 40). The value of extimacy, according to Ulmer, is that when we access and examine our innermost feelings, particularly about complicated issues, we may be able to collaborate more effectively on solving existing problems. In other words, the public examination of our spiritual register through the use of digital tools is an untapped possibility for improving social well-being. Ulmer refers to Heidegger's "complaint about modernity [which] was that its enframing or apparatus supported only one kind of thinking – the calculative (instrumental, empirical, utilitarian) … The problem is that there is another kind of thinking equally important to humanity throughout its history. The kind of thinking neglected in modernity is 'meditative'" (*Internet Invention* 64). Addressing this neglect, *Cooking with Dog* demonstrates exactly how a digital site can invite discourse on a public issue, involve participants emotionally, and then, specifically through references to chemical sense stimulation, forge an overall atmosphere that inspires the meditative mood necessary to affect changes in

attitudes so that cooperation and collaboration become possible. When this occurs, social problems can be solved collectively.

First, the ironic title not only provokes a debate about race, but it does so by suggesting the practice of eating dog meat, which is actually not uncommon around the world but, at the same time, is considered severely taboo by many cultures. References to eating practices, particularly those seen as taboo by Westerners, have been used to construct racist stereotypes throughout history. The figure of the cannibal, for example, was popular among the explorers and colonists of the eighteenth and nineteenth centuries, first, to mark cultural differences "establishing the differential between savagery and civilization, or paganism and Christianity" and, later, to become the "sign of racial and moral degeneracy [demonstrated by] a bestial and lustful business governed by the desire for human flesh" (Kitson 79). Differences in food habits, particularly at such extremes, are easily utilized to emphasize not only the otherness, but the inferiority, of entire societies. By alluding to a food taboo, *Cooking with Dog* begins a dialogue about differences in race and culture, a dialogue to which viewers are quick to contribute.

Next, through the impulsive reactions of some participants, a space opens up for examining the issue through feelings instead of logic. Indeed, it has been through the application of a seemingly logical rhetoric, what Peter J. Kitson calls "the theoretical equipment of Enlightenment classifiers" (ibid), that many racial stereotypes have been established and perpetuated. Even in recent decades – even now – the type of reasoning that reflects Classical methods, such as the syllogism, are used to justify prejudice. In *The Logic of Racism,* for example, E. Cashmore interviews 800 residents of West Midlands, England in the 1980s after a

long period of migrants entering from Asian, African, and Caribbean cultures. One resident, whose reasoning is typical of many others, offers the following explanation:

> It's very easy to be a liberal in Exeter. But it's a lot more difficult when you live in Brampton Road, Sparkbrook, and you've seen lots of changes happening, and different racial groups have become part of your district. It's very difficult then, because you're always going to blame what you see around you. It's very easy for a professional person to be a liberal; the majority of professionals don't come into contact with West Indians or Asians. It's much harder to be liberal when they live next door. (6)

By this reasoning, the speaker justifies the attitudes and behaviors of racial prejudice as the expected result of living in a particular area. The deduction made here suggests that living in Sparkbrook makes it difficult for one to be open to different cultures; this speaker lives in Sparkbrook; therefore this speaker should not be expected to be open to different cultures. Such an example shows how syllogistic reasoning might be used to explain why people feel the way they do; however, applying logical analysis, or what Ulmer calls "the kind of thinking applied in conventional consulting" (*Internet Invention* 64), to feelings may not be the most effective means of rectifying a problem embedded in emotion. Rather, Ulmer offers Heidegger's term "attunement," referring to the "state of mind," or mood, that accompanies (seemingly objective) knowledge as a more compelling entry point into the public discourse of the digital era. In addition, he argues that it is through the use of digital imaging, which can incorporate not just the visual but all physical senses, that we can "write" the "state of mind" (58).

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Following this principle, the title *Cooking with Dog*, at first, initiates the type of controversy that sometimes stems from exposure to different cultures; but then the performance of Chef and Francis quickly creates the meditative atmosphere necessary to redirect both the racial stereotyping and the hostile commentary of some participants, not by the exclusion of their input, but instead by the "tuning of the … soul" (Ulmer *Internet Invention* 59). To begin with, the performance of the cooking process has long been a method used by mothers and other caregivers to soothe an agitated spirit. It is effective not only in its promise to satisfy the appetite in the end, but also through its incorporation of the entire sensorium throughout the process, which fuses the disquieted body with a rhythmic demonstration of care that recalls the earliest form of comfort for so many viewers. The swishing sound of a whisk beating an egg or the clinking of a spoon against the edge of a bowl to knock off an excess of sauce can spark memories of physical comfort, familiar flavors, and ineffable emotion.

The effect of these nonverbal messages on the viewers of the show is, again, reflected in their comments. While several antagonistic examples are mentioned above, they are by far outnumbered by expressions of fondness, gratitude, and humor. Comments include, "I love this ma'am, I want to hug her," and "can I trade my mom with her? my [*sic*] mom always wanted a dog" ("Takoyaki"), and "I wish you were one of my grandmas…" ("Sata Andagi"). Such comments suggest that, although Chef interacts with viewers only in the form of a recorded image, she evokes powerful emotions and even physical longings, such as the desire to hug her. The expression of such desires shows how some viewers have established a personal relationship between themselves and the image, a relationship formed precisely through the act of watching

Chef prepare food. Additionally, comparisons between Chef and several viewers' mothers or grandmothers demonstrate that while participants in many online communities don't know each other personally, they can identify with one another through the similarities in their "inner condition[s] or state[s] of mind" (Ulmer *Internet Invention* 41), which are collectively represented by Chef's culinary performance. This type of affinity reflects the identity of posthumanist subjects as embedded within larger groups that may be heterogeneous by traditional classifications of race, species, and even material makeup (biological, cybernetic), but that share certain emotional similarities that may have previously gone ignored. The recognition of this identity then becomes the type of reasoning necessary for successful collaboration in the digital age. As such, it represents the rhetoric of electracy that Ulmer seeks to develop.

Beyond connecting subjects through shared feelings, the digital cooking performances also provide images of ingredients, such as fresh green scallions, pink shrimps, and steaming broth, which remind us of flavors, textures, and fragrances that inspire a collective sense of aesthetic pleasure enhanced by the graceful and economic movements of Chef, who turns the sequence of steps into something akin to ritual. In fact, the placement of bowls and utensils, the silent preparation, and the attentiveness with which each recipe is prepared reflect certain details of a Japanese tea ceremony, the very purpose of which is to represent a mental state through a "logical progression of actions [that] express the essence of peace and calm" and to transfer this state "to the viewer in order to structure his or her mental attitude" (Kondo 207). The tea ceremony exemplifies the power of invoking every bodily sense, particularly taste and smell, as a

method of influencing points of view, and in doing so, opening up opportunities for new

understandings and, in turn, new relational couplings. As Dorrine Kondo explains in "The Way

of Tea," the ritual "enables the participant to forget the contingencies of everyday life and frees

the mind for 'greater thoughts'" (208).

Figure 2: 2a. Chef's Careful Preparation; 2b. Japanese Tea Ceremony

Figure 2a Source: *Cooking with Dog.* Still image. *NewMediaRockStars.* Web. 5 Mar. 2016
Figure 2b Source: *Visiting Places.* Photo. Web. 5 Mar. 2016

Similarly, the careful cooking processes that Chef performs remind us to think with our bodies

and access the knowledge and memories established through the physical senses. When viewers

post comments, such as, "this video makes me remember about when i [*sic*] was little i loved

ramen and i still do"("Yakibuta"), and "That was more than food- that was art; and, she is more

than a chef, she is truly an artist" ("Takoyaki"), we see how Chef and Francis have shaped the

atmosphere of their site in such a way as to calm the desire to compete by seeking out one

another's differences and, instead, to encourage a shared aesthetic appreciation of the common experience of cooking and eating.

To extract this calmness and beauty from what may be considered a mundane act of making a meal is to experience a mood of acceptance and appreciation. When such a state of mind transfers back to the original issue of cultural difference and otherness, one's point of view may be more easily shifted. This process is what Ulmer refers to as "reason[ing] by means of mood" (*Internet Invention* 55). From this shared mood, then, comes the inspiration and imagination necessary to address and offer solutions to the very problem of difference invoked in the first place.

To apply Ulmer's three-part template for "assessing how an image produces meaning" (10), we can determine, first, that the performances of Francis and Chef in the video series evoke feelings of comfort, humor, respect, and even trust. Ulmer cites Anthony Giddens as insisting that "[c]reativity … depends upon an atmosphere of fundamental trust, existential security or safety" (67). Through the technique of cooking food for viewers to witness, these two performers establish just such an atmosphere. The second step in assessing images has to do with metaphysics, or "what the image reveals about what the world is like" (10). This, too, has been communicated quite clearly. The video images demonstrate that gender and species differences matter less than their similarities and that through a coalition or collaboration of effort, positive results can be achieved. In addition, the videos show that simple daily acts such as cooking and eating, particularly when done with care, result in great physical and emotional pleasure. The final step in Ulmer's template addresses "morality: given the first two points, how one should

live (what one must do)" (ibid). Considering the messages communicated through the various episodes of this show, both through the physical performance of its stars as well as through the inclusion of a wide variety of opinions expressed in the comments section, this site appears to suggest that we ought to reach across physical and ideological barriers in order to learn and accomplish more, that we ought to acknowledge the "blind spots" inherent in our own viewpoints and, therefore, consider situations from different angles, thus expanding our consciousness. Through this type of process, rather than through traditional debate, we may become more likely to achieve solutions to long-standing problems.

The profusion of such sentiments following any of the videos in the series demonstrates that the overall mood of the site is one of trust, respect, and affection. This mood is established through the particular style and tone of the cooking performance, which is mirrored by the attitudes of the viewers themselves, especially those who have succumbed to the power of the stimulation of all of their bodily senses. With the mood of trust and respect established among the majority of participants, other, more open, conversations regarding race and cultural traditions become inspired, often through discussions of recipes – just as food differences and taboos might emphasize the separation of cultures, the sharing of traditional dishes can be a common bridge between cultures – so that some barriers and prejudices might be addressed and dissolved. For example, one multi-participant conversation thread embedded in the "Bento Box" episode reads:

"Hi I'm Korean. I really like Japan. :) I can go in Japan. I think Japan hates Korea? … I want try Japan food."

"Hi, I'm Japanese. I like Koreans too :) I'm not interested in K-Pop, and J-pop as well because I prefer American music, but love Korean food!!!!! I think Korean food is much better than Japanese food. Most Japanese people like Korea. Only stupid ignorant crazy racist right-wing scums hate Korea. They're losers."

"Haha Lol! Yeah. I love Japanese too!

"Actually many Japanese would love to see Japan and Korea being friends."

"Yes Lol. I want friend Japan." ("Bento Lunch Box").

Simple exchanges such as these are made possible through the sense of hospitality established on the site. These conversations represent artifacts of posthumanist culture in that they demonstrate the practice of affinity and articulation rather than competition for superiority. Further, such newly forged relationships, mediated through the physical interface displaying the site itself, may never expand into anything more. In other words, these new friends may never physically meet. As such, the significance of the conversation is situated in the performance of the shared mood. The accomplishment is the dissemination of such a mood across viewers from various societies. For scholars such as Ulmer, Derrida, Wolfe and Haraway, this is the first step toward a new way of being.

Cyborgs and Senses

The cyborg version of the posthumanist subject features the articulation between living flesh and machine as its primary characteristic. In this sense, food-based web content may be the quintessential example of this biological-digital interface because of the depth of physical sensation involved in tasting and smelling. Certainly, any major technological evolutions throughout history have coincided with shifts in daily life and, therefore, with shifts in food practices. From the discovery of fire, to the spice obsession of the exploration age, to the establishment of national cuisines made possible by the invention of the printing press, many of the technologies we have developed became reflected in our eating habits. But it is today's digital tools – increasingly embedded into every facet of human existence and often functioning as actual physical prostheses – that allow access to the broadest and most varied opportunities for cooking and eating experiences ever to be enacted by real bodies. Indeed, according to a 2013 Google Allintitle search, food blogs alone number over 2 million ("43 Most Popular"). From personal posts and photos to videos, like *Cooking with Dog*, to advertisements on the subject of food and flavor, the interpellation of the chemical senses is increasingly unavoidable. This increase in exposure to the tastes and smells of the world, even when exclusively virtual, shifts one's cognitive lens from the longstanding emphasis on vision in Western culture that was catalyzed by the invention of writing and reinforced through such innovations as painting, photography, and cinema. Marshall McLuhan suggests that this "growing pictorial stress" only began to ease with the invention of television, which, because of the physical interaction necessary to follow the changing light waves of moving pixels, required the participation of

multiple senses (44). Stemming from that early turn toward electronic media, the current

vastness of available digital food experiences can provide a shift in perspective from the distant

and abstract connection with the environment common in highly visual cultures, to an

increasingly embodied connection, taking in environmental details through subjective and

instantiated experience. As such, these connections increase one's "openness from closure,"

thereby broadening environmental awareness along with imaginative and collaborative

possibilities. In other words, as a matter of *technogenesis,* digital tools mediate a myriad of

embodied experiences through which we can learn, grow, and connect in new ways.

The cyborg is an omnivore, but not in the traditional sense. The cyborg can incorporate into its

material body a profusion of both virtual and actual taste and smell experiences, and each time,

these experiences have the potential to expand the size of the information circuit that designates

the cyborg as a system.   Through the chemical senses, one can gain a deeper understanding of

historical, geographical, scientific, and even cultural conditions because food inevitably carries

with it elements of its origin, making, and social value in the same way that words contain their

etymologies and people their personal and cultural backgrounds. For example, the French phrase

gout du terroir, or "taste of the soil," suggests that the flavor of the earth and rocks in which

grapes are grown can be detected in the taste of the wine they are used to produce. While some

argue that this is unlikely in a literal sense, the expression implies that particular smells and

tastes can reflect the cultural and physical characteristics of the regions in which they are most

common. From the savory combination of seafood and saffron permeating a Spanish *paella de*

marisco to the spicy tomato-sauce aroma of a New York City pizzeria, one can discern a variety

of meanings, values, debates, and traditions. Additionally, the methods used to prepare foods are reflected in their flavors, so that the consumer can learn through taste the varied chemical effects of smoking a piece of meat, for example, as opposed to boiling it or braising it. In fact, science instructors are increasingly incorporating food into their lessons. For example, Melani W. Duffrin and colleagues have developed a curriculum called FoodMASTER, Food, Math, and Science Teaching Enhancement Resource, a program that has received the Science Education Partnership Award and is supported by the National Institutes of Health (Neff). In addition, Harvard University offers a course entitled Science and Cooking: From Haute Cuisine to the Science of Soft Matter (Walsh), where students make ice cream using liquid nitrogen and study the "properties behind protein folding and unfolding" by making cheese (par. 8). And while each instance of food experience differs for each individual, it can be argued, based on such examples, that the tightest couplings – the deepest and most frequent interactions – between bodies and information are beginning to take place on a large scale through the senses of taste and smell.

In fact, both poststructuralist and posthumanist theorists have suggested that the most effective and concrete means of signifying require those tangible materials which enter and exit the mouth, the organ used for both eating and speaking. Ulmer cites Gilles Deleuze, whose *Logic of Sense* supports his inquiry into the "human use of hardware and software," as he seeks techniques for "writing the unconscious" and combining logic with physical experience, or "tables for truth *and for eating*: not one or the other but both together" (*Internet Invention* 163; emphasis in Ulmer). Deleuze states that when we become capable of expressing our distinct

internal conditions externally, "'speaking will be fashioned out of eating and shitting, language and its univocity will be sculpted out of shit'" (ibid). In other words, the act of communication will be at its most precise when we limit the obstruction of words by interacting instead through common bodily events. Likewise, in *Of Grammatology,* Derrida practices a similar method of reverse metaphor – the traditional metaphor transmits concepts from a concrete to an abstract understanding, while these scholars move from abstract to concrete – by suggesting that the substance emitted from the mouth that cannot be used to practice objectivity or indifference (as words can be), and is therefore an effect of individual subjectivity, is *vomi*, or vomit (Ulmer *Applied* 56). Derrida praises *vomi* for its condition of denying the detachment traditionally required to view art and practice logic, and for its "effacement of the distinction between the fictional and the real, between art and life" (57) because while *vomi* is symbolic in its representation of disgust, or the anti-aesthetic, it is inevitably also an intense physical experience. The dissolution of these very boundaries is the primary characteristic of the cyborg subject according to Haraway who explains, "the cyborg is a matter of fiction and lived experience…. a condensed image of both imagination and material reality…. who populate[s] the world ambiguously natural and crafted" (*Simians* 149-150). While imagination and creativity are highly important for cyborg interaction, the physical instantiation of ideas carries equal, perhaps even greater, value. This is why both Deleuze and Derrida use such graphic examples in their efforts to emphasize the relevance of bodily experience in their related quests to resurrect those forms of expression so long omitted from the logical, linear rhetoric of Western tradition. Even Wolfe, who hesitates to discount humanistic paradigms directly, takes

up these scholars' recommendations in his attempt to promote a posthumanist point of view

through a renewed appreciation of the body's senses:

> [T]he perspective I attempt to formulate here – far from surpassing or rejecting the
>
> human –   actually enables us to describe the human and its characteristic modes of
>
> communication, interaction, meaning, social significations, and affective investments
>
> with *greater* specificity once we have removed meaning from the ontologically closed
>
> domain of consciousness, reason, reflection and so on. It forces us to rethink our taken-
>
> for-granted modes of human experience, including the normal perceptual modes and
>
> affective states of *Homo sapiens* itself, by recontextualizing them in terms of the entire
>
> sensorium… (xxv; emphasis in original)

Like animals that interact through the totality of their senses and like machines that process

information via multiple functionalities, cyborgs make comparable – perhaps one day greater –

use of the chemical senses as they do of sight, sound, and touch as they create, navigate, and

interconnect their heterogeneous, posthumanist environments.

This dissolution of the boundary between fiction and reality is the key to understanding just how

cyborgs utilize digital media to incite and instantiate taste and smell experiences. Dissolution

itself, when considered concretely rather than abstractly, is the very process enacted by taste and

smell. Ulmer reminds us that, "'both of these [senses] are affected by salts… of which some

may be dissolved by saliva in the mouth, the others by the air'" (*Applied* 57). As such, the

embodied act of dissolution is the specialty of the cyborg. Further, as the boundary between

fiction and reality disintegrates, so does that between "physical and non-physical" (Haraway,

Simians 153), as well as that between "presence/absence" (Hayles *How We Became* 29). Digital tools assist in the breakdown of these concepts through such technologies as virtual reality, smartphones, video chat, and even email. When such tools are connected to the flesh, expanding the information circuit that constitutes the body as a system, subjective experience travels the current across the central nervous system, through the computer interface, along a global network of satellite signals, and back again.

As the physical senses extend electronically, taste and smell become activated in a variety of ways. To begin with, videos and images of food can awaken personal memories of eating experiences that have been stored in the body, often unconsciously. Scholars suggest that such memories take the shape of patterns, which can then be used to "shape how we engage with… our subsequent experiences" (Gee 40; see also Damasio; Maturana and Varela). This means that virtual foods, even those that have not been tasted before, will likely reveal some similarities to familiar flavors so that their consumption can be imagined by the user and registered in the memory as a variation of the original experience. I call this process *disembodied consumption* which, ironically, supports and is supported by theories of embodiment. Further, this process is sustained not only by somatic memory but also by the imagined anticipation of future food experiences, as well as by the sensory overlap that takes place in synesthesia, whereby the stimulation of one bodily sense causes reactions in another. In all of these situations, the chemical senses are enacted without engaging any food in its material state. This phenomenon will be explored further in Chapter Three's discussion of recent innovations in digital taste and smell devices and the cognitive possibilities they might offer.

Figure 3. Camera Tastes the Food before Mouth Does

Source: Mobile Awards Series: Digital Asia Festival 2013. *Spikes Asia.* Web. 7 Mar. 2016

In addition to these increasingly frequent events of *disembodied consumption*, interacting with

digital food media often leads to or stems from actual cooking or eating. For example, many

users post photos of the food they are about to eat. In China, this phenomenon is known as

camera tastes the food before mouth does, and was recently appropriated into a smartphone

application that provides a Listerine-brand cartoon mouth to act as a frame through which the

food photos can be taken. This application has won advertising awards for increasing brand

awareness and brand loyalty based on the idea that "foodie time is the most efficient occasion to

communicate oral care" ("Camera" par. 3). Certainly this food-photographing trend can be

found today in most cultures that both value digital media and have access to sufficient nutrition.

This demonstrates how the technology can be used as a prosthetic device to assist the body in

remembering the eating event and the flavors experienced.

Another common digital practice that occurs before cooking or eating is the online recipe search. A study conducted by consumer research firm The Hartman Group, released in February, 2012, concluded that 49% of those surveyed obtain food-related information from social networking sites; 40% learn about food from websites, apps, or blogs; 47% have searched for online food coupons or deals, and 42% have searched for recipes online (Becker). When such common digital acts as searching a recipe or viewing a blog lead to novel cooking or eating experiences, the effect could be considered a form of *embodied virtuality*, whereby simulated experiences accessed through digital tools become enacted by physical bodies in their contexts. Ulmer would call this "impersonation," which he suggests is a digital citizen's version of comprehension similar to the physical and emotional embodiment of information required in method acting (*Internet Invention* 129). These enactions then alter the bodies' patterns of perception and consciousness – even eventually, with repetition, altering the bodies' habits and skills more permanently. In addition to this effect, the user could then relate her own personal experience of enacting the recipe on the same site or blog originally accessed, thereby changing the information made available by the digital source, thus completing the virtual-material "feedback loop" (Hayles *How We Became* 14). Hayles offers the example of virtual Ping-Pong to describe how such interactions "make … immediate the perception that a world of information exists parallel to the 'real' world" (ibid). Further, Hayles argues that digital "devices … can use unconscious and nonconscious perceptions in ways that make their awareness available to consciousness" including devices that "retrain neuronal pathways damaged by accident or illness" and others that "reorganize brain function so that blind patients can 'see'" (*How We Think* 102). Such situations exemplify not only the embodied learning and change made possible

through the stimulation of the various senses, but also how the use of digital tools, such as the food blog mentioned above, expand such learning opportunities in a context of sharing subjective experiences, thus forming the coalitions so valuable in a culture of heterogeneous, posthuman, cyborg subjects.

In Ulmer's effort to invent new forms of rhetoric appropriate for the digital age, he offers a genre called *mystory*, in which digital citizens compose a collection of personal memories in an effort to trace a route of signifiers through scenes of instruction in community, family, and entertainment discourses related to the individual subject's identity formation. Ulmer requires these compositions to be largely based on "details that address the senses" in search of a pattern that identifies one's "signature style of learning," which can then be used "to augment and enhance individual and collective creativity" with the purpose of "approach[ing] public or community problems in terms of [the] human question" (*Internet Invention* 1-7). In other words, he proposes that we consider the incorporation of concrete materials and physical bodies in terms of how they contribute to learning and communication in order to increase the overall well-being of society. His students who create *mystories* use images and digital tools to convey the emotional effects of those moments of concrete incorporation they have chosen to share. This, of course, inverts the humanist values of logical reasoning and dialectics, as well as abstract cognition. Through the suggestion of this practice, Ulmer is encouraging the shift in subject identity from human to posthuman, from organism to cyber-organism. The examples of mystory that have been created in his classes can thus be considered artifacts of cyborg culture, which demonstrate the use of digital media to archive and express contemporary social values.

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Likewise, online food blogs, posts, and sites are the results of this very process, and having appeared spontaneously across digital cultures, they transcend barriers of geography, language, race, gender, class, and sometimes even species. These posts have taken the mystory a step further in that the images used to signify relevant experiences are intended to invoke the chemical senses and inspire enaction. In this way they expand the variety of possible connections between bodies and information. As such, it is not only the creation of these food-related sites, but also their subsequent use by other viewers, that more firmly establishes intersubjective connections among multiple bodies. Therefore, such sites are the artifacts that best reveal the emergence of posthumanist subjects who have shifted their sensory ratios in order to perceive their worlds in ways that reestablish the importance of emotional, bodily and environmental health, as well as that of shared creativity and aesthetic pleasure. Through connecting, rather than competing, digital subjects are expanding their existential possibilities. In this way, today's version of evolution is not based on *survival of the fittest*, but rather, survival of the *most fitting*.

CHAPTER THREE- TECHNOLOGICAL APPARATUS

THERE AND BACK AGAIN: HOW COGNITION AND COMMUNICATION RETURN TO THE BODY THROUGH THE DIGITAL EXTENSION OF THE SENSES

<u>Embodiment</u>

The recent emergence of a posthumanist paradigm that views the subject as a system within systems rather than as an independent and objective observer of environments includes an equally abrupt transition from a long-standing solipsistic theory of mind to a conception of embodied cognition supported by both cybernetic and neurophysiological research. That is, in order to recognize the ways in which we connect both physically and emotionally to machines, information, and other living things, we must undoubtedly acknowledge that the act of knowing does not take place in some abstract space called "mind" but, rather, in the concrete material of the nerves, cells, and sensory organs through which we act and feel. The increased incorporation of sensory stimulation in current technological designs both reflects and perpetuates this argument. Further, this shift in the model of cognition offers the opportunity to seriously consider taste and smell as vehicles for communication. As such, the rhetoric of the chemical senses offers consensual sensory domains within which heterogeneous subjects can empathize and reason in the ways that Ulmer argues are necessary for successful collaboration, perhaps even survival, in the digital age.

In his application of grammatology to today's digital media, Ulmer addresses Aristotle's use of writing technologies to invent philosophical concepts. One of these is his account of the relationship between mind, soul, and body, which reflects the privileging of abstract over concrete knowledge that remains even after Aristotle's critique of Plato's theory of ideal Forms. In *Politics,* Aristotle describes a separation between spirit and matter, as well as between intellect and emotion. He states that, "as the soul and body are two, we see also that there are two parts of the soul, the rational and the irrational, and two corresponding states – reason and appetite" (Book Seven, par. 55). He also suggests that, "the soul rules the body with a despotical rule, whereas the intellect rules the appetites with a constitutional and royal rule" (Book One, par. 25). This division and ranking is fortified by Descartes who, two thousand years later, similarly reasons:

> [A]lthough … I possess a body with which I am very intimately conjoined … I have a clear and distinct idea of myself inasmuch as I am only a thinking and unextended thing … on the other [hand], I possess a distinct idea of body, inasmuch as it is only an extended and unthinking thing, [therefore] it is certain that this I … is entirely and absolutely distinct from my body, and can exist without it. (28)

Three hundred years after Descartes, several scholars in the fields of cybernetics and artificial intelligence sustain this dualism with suggestions, such as that by Hans Moravec, that human consciousness could be extracted and downloaded into a computer (Hayles *How We Became* 54) in a scenario similar to that imagined by sci-fi author William Gibson, who coined the term

cyberspace, and invented the process whereby his characters could *jack-in,* in order to exist

solely as information leaving behind, at last, the expendable meat of the body (54).

Ironically, such suggestions, described by Hayles in her story of "*how information lost its body*"

(*How We Became* 2), led to the development of current theories of embodiment and enaction that

insist on knowledge as a function of physical experience. Like Ulmer, Hayles considers the

invention of new technologies in terms of their rhetorical and epistemological possibilities.

According to her portrayal of key moments in the Macy Conferences on Cybernetics, the

simulation designs presented there, in efforts to model biological homeostasis and thinking, were

successful only as exterior imitations of living behavior.   It was generally concluded that

although the outer behavior of machines might appear to match that of humans and other

animals, the interior processes of the machines were simplifications that had to be black-boxed in

order to diminish their differences. Even the design of the McCulloch-Pitts neuron, a basic

model of the auditory and visual circuits inside the human brain, was said to function outside of

the context of any environment, and therefore was a highly significant contribution to

neurological studies but also a total abstraction of actual brain processing (61). As an

abstraction, it could make decisions based on probability equations representing binary code, but

could not apply meaning to those decisions, leading to the distinction between "information in a

channel and information in a human mind" (54). The former refers to data, while the latter

implies signification. Because of the design and critique of such models, researchers realized

that a knowing subject's environmental context had to be taken into consideration, shifting the

conversation from differing definitions of information to the powers of perception which,

McCulloch and many of his colleagues determined, must be shaped by both "physical sensations [and] universals in philosophical thought" (59). In other words, knowledge is made through the combination of the stimulus of the body's sensory organs and the paradigm or perspective from which the sensing subject interacts with the environment. Even this concept of a philosophical paradigm is based in materiality since, historically, one's perspective is greatly influenced by one's physical position within a specific time and place; the body, as a cultural construct, is still a material entity (192). This very definition of knowledge as perception plus perspective, and therefore embodied, makes relevant today's increasing attention to the chemical senses along with the view that their use as perceiving tools, particularly when enacted through digital media that transcend time and space parameters – hence loosening the grip of geographical and historical culture on bodies – can lead to innovative insights capable of expanding both psychic and social systems. Even Moravec eventually makes a slight concession to the notion of embodied cognition when he states that robot consciousness will not be equivalent to that of humans until machines can perceive environments through similar sensory input functionalities (par. 18). Hence, this use of digital modeling in efforts to demonstrate a machine's aptitude for consciousness leads to an illumination of the communicative and cognitive indispensability of the physical senses, finally emancipating the appetite from the ancient and obstinate oppression of the intellect, and allowing the body to contribute equally to the ways in which we can understand our worlds and one another.

Furthermore, this power of embodied cognition to affect worlds and relationships lies in its recursivity: as environmental information meets the sensory organs, the body reacts physically

and emotionally, registering selected details of the environment, thereby shaping the environment's information, in an ongoing feedback loop. Theorists such as Antonio Damasio, Humberto Maturana, and Francisco Varela have demonstrated this process through their research on nervous system activity. In *Autopoiesis and Cognition: The Realization of the Living,* Maturana and Varela explain how cognitive beings are not only shaped by, but also shape, the environments with which they interact:

> [T]he nervous system defines through the relative weights of the patterns of interactions of its various components, both innate and acquired through experience, which relations will modify it at any given interaction… Or, in general, the organization and structure of a living system … define in it a 'point of view', a bias or posture from the perspective of which it interacts, determining at any instant the possible relations accessible to its nervous system. Moreover, since the domain of interactions of the organism is defined by its structure, and since this structure implies a prediction of a niche, the relations with which the nervous system interacts are defined by this prediction and arise in the domain of interactions of the organism. (21)

Additionally, as prosthetic beings, humans and posthumans often interact through tools that influence this "niche" by which we prioritize certain methods of perception. For example, as the technology of writing has strengthened our visual niche over the past few millennia, we have come to communicate and learn primarily through words and images while continuing to improve on and create new visual devices. On the other hand, as current technologies

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increasingly dissipate that emphasis across our entire sensorium, our nervous systems will function differently and we will increasingly engage with elements of our environments that may have previously been ignored. Further, while Varela later names this phenomenon *enaction* and describes it as "mind and world aris[ing] together," he adds that "their manner of arising in any particular situation is not arbitrary" (*Embodied Mind* 177). This means that the expansion of full-sense technologies, both invented and emergent, will indeed change our worlds, our ideologies, and even our bodies and brains as a posthuman species.

Finally, the effects on our bodies and brains of the subjective environments created out of our own perceptions lead inevitably to emotional experience. Just as Ulmer seeks the incorporation of poetry, nostalgia, art, and music into contemporary rhetorical practices, Antonio Damasio acknowledges not only the inseparability of emotional and reasoning processes, but also the physical embeddedness of these functions together within particular areas of the brain. In *Descartes' Error*, Damasio relays a series of case studies of patients suffering damage to the ventromedial prefrontal cortices, which lie behind the eyes at the center of the brain where the two hemispheres meet (32). Based on these studies, Damasio concludes that (what he refers to as "secondary" or "adult") emotion happens by an image, or pattern, rising among receptors in the brain, stimulated either by present experience or by memory (known as *perceptual images* and *recalled images*, respectively), which then signals the prefrontal cortex to send messages to the other sectors of the brain that control the body's customized, or *contingent*, reactions, which might include blushing, a raised heartbeat, the release of adrenaline, a tightness in the stomach, or a shift in the facial muscles (138). The conscious awareness of these physical and chemical

reactions – again taking place as a present experience and therefore a new perceptual image in the brain – is what he refers to as "feelings" (139). This creates a "juxtaposition of an image of the body proper to an image of something else" within the cerebral cortices (145). In this way, the experience of an event (or even the memory of that experience) and the feeling it evokes are equally cognitive processes taking place simultaneously and associatively across a number of brain structures. These associations become what Damasio calls *somatic markers*: feelings that can recall or can be recalled by specific events and that assist, even sometimes overtake, the reasoning process in decision-making (174). As such, *somatic markers* can be seen as the interior equivalent to Varela's more performative process of *enaction,* which not only names how "sensorimotor couplings" with the environment make meaning (like Damasio's "feelings" do) and participate in self-regulation (as do what Damasio calls "background feelings"), but also drives "intersubjective interaction," which is "the cognition and affectively charged experience of self and others"" (Thompson 407).

This type of interaction, based on shared representations of the environment, or *consensual domains,* is also based on emotional logic rather than analytic reasoning as demonstrated by Damasio's research. His study of patients with damage to the ventromedial prefrontal cortices showed that they had no difficulty with "attention, perception, memory, language, intelligence" (Damasio 11), but were unable to make appropriate decisions based on what might be considered social and ethical common sense, such as "the ability to anticipate the future and plan accordingly within a complex social environment; the sense of responsibility toward the self and others; and the ability to orchestrate one's survival deliberately" (10). This research then, along

with Maturana's and Varela's, demonstrates that emotional and social well-being are functions of the brain. Further, these brain functions (in a healthy brain) are accessible through the sensory organs via the nervous system. This process supports the theories of Ulmer and Derrida as they seek to stimulate the senses, mainly through text and images that reveal emotional and personal impressions. Ulmer calls this "the reversal of phoneticization," and states that it is "the fundamental principle of grammatology as Writing" (Ulmer, *Applied* 79). Further, Ulmer, along with Hayles, Haraway, Wolfe, and others, argues that both intersubjective interaction and the reversal of phoneticization are necessary in order to ultimately achieve the collaborative frame of mind that signals the next step forward in our evolution.

As Ulmer points out, traditional linear reasoning and the tools of language used to practice it tend to minimize these emotional and social aspects. He argues that today's multimedia tools are appropriate for incorporating these elements through the digital creation of immersive atmospheres, or environments, that bring about a "virtual mood" whereby subjects may become open to new perspectives that allow for innovations in reasoning practices. He uses the ancient term *chora* to name such an atmosphere (*Internet Invention* 68), and he suggests that it is achievable through affective sensory stimulations, such as viewing an emotionally moving photograph (44) or listening to a stirring piece of music (220).   This value Ulmer places on the atmospheric influence of mood, along with the embodiment theories of Maturana, Varela, and Damasio are indispensible to today's designers working in a variety of fields including virtual reality, industrial design, and education, through whose work *chora* has begun to emerge.

Design across the Sensorium

Immersive designs, meaning those that incorporate multiple senses, can be virtual or ubiquitous. They can shape how we interact through digital media with the "parallel" world of information that exists on the other side of the electronic interface (Hayles *How We Became* 14), or they can surround us through common products we use every day. An industrial designer and public speaker representative of a wave of individuals and companies incorporating immersion into their everyday products is Jinsop Lee, who has developed what he calls "five senses theory" and has created the "five senses graph" to measure how many senses are stimulated through interacting with different products. In multiple presentations, he demonstrates that the more senses involved in the use of a product and the greater the degree of their involvement, the more pleasurable and memorable the experience and, therefore, the more successful the design (Lee 2012, 2013, 2015). For example, he compares the invention of the Nintendo Wii to that of traditional video game controllers, and his graph demonstrates the increase in immersion that makes the Wii the more effective design because it expands the sense of touch from the use of two thumbs on a number of buttons to the participation of the entire body (2012). By equating the concepts of pleasure and memory – as well as by recognizing their value – Lee acknowledges the influence of sensation and emotion on cognition as stimulated by objects in the environment. In fact, this stimulation of emotions by objects is the very effect Ulmer seeks to emphasize when he calls for a reversal of the traditional process of the written definition. Rather than understanding the world by determining the essence of each object, Ulmer suggests that we pay attention to how objects make us feel. He calls this "Antidefinition," and he offers an example

by Georges Bataille from the "'Critical Dictionary,' composed by the Documents group …in the 1930s," which defines a factory chimney, not as a structure for the ventilation of smoke, but instead as a "fear-inspiring architectural form" and "the oracle of all that is most violent in our present-day world" (*Internet Invention* 39). This description emphasizes the subjective emotional effects of Bataille's environment, incited by the intense visual and olfactory perception of his interaction with the chimney as that perception shapes and is shaped by his cultural perspective of the modern era. Similarly, Lee is concerned with the affective contribution of his designs to the atmospheres within which they are integrated as much as, or even more than, just their functionality. By prioritizing the pleasure that can result from interacting with objects, Lee's designs model not just embodiment, but also the specific process of antidefinition so valuable to Ulmer.

Further, Lee emphasizes the importance of intentionally incorporating the chemical senses, which he says are "completely ignored by most designers" (2012). He uses the example of a solar clock that heats five different scented oils as the sun travels across the window of a home, whereby homeowners can determine the time of day by their sense of smell. Another idea he describes is a candy-flavored toothbrush that, when the taste of candy runs out, reminds users to buy a new one (2013). These items, along with demonstrating the antidefinition, show how the stimulation of smell and taste can shape user behaviors in situations far beyond cooking and eating, and, therefore, model an innovative and relevant technique to consider when seeking new methods of rhetoric. Such designs also become artifacts, depicting a posthumanist culture that thinks through objects that extend sensory perceptions and their associated meanings into

structural couplings with the external environment. Further, the acceptance of the idea that we might be able to smell the time of day or to taste a reminder that an errand needs to be run directly shapes the creation of new objects, literally "bring[ing] forth the world" based on the ability to perceive it (Maturana and Varela 31). Thus Maturana and Varela's theories of recursivity and enaction are not only simulated in the relationships between Lee's designs and their users, but physically manifested in them. Lee's advice to all industrial designers is to measure their ideas against his five senses graph to evaluate the effectiveness of their designs. As the popularity of this theory spreads, it is inevitable that more of the products we use daily will engage our chemical senses and, therefore, continue to shift our perceptions and our perspectives from an emphasis on visual and abstract cognition to multisensory and visceral atmospheric experiences. In this way, Lee's work reinforces the articulation between external data and signification in the body, and it offers a method for unlocking potential channels by which we can connect to our well-designed worlds.

While Lee's theories prioritize the design of objects that invite bodies into their particular information circuits – a model of *extended cognition* – researcher Nimesha Ranasinghe addresses this structural coupling in the reverse. He invents digital technologies that enter the body itself – demonstrating *embedded cognition* – by invoking the chemical senses, which may then inspire a variety of innovative applications. As such, his work compares even more closely to that of Ulmer's regarding digital rhetoric. Both scholars emphasize medium over message and physical effect over content following the premise that learning and communication are shifting, through the use of new technologies, from language-based processes of linear and objective reasoning to

instantiated and visceral invigoration of nervous-system activity. While Ulmer's tactics include

the stimulation of memory, anticipation, and mood mainly through interaction with images,

Ranasinghe seeks to achieve similar results through direct application of electrodes onto sensory

organs, particularly the tongue. He explains:

> Several interactive systems can be found in the literature for simulating taste
> sensations, especially in the area of Human-Computer Interaction (HCI).
> However, these solutions mostly use an array of edible chemicals to produce
> different taste sensations. Using chemicals in an interactive system is unrealistic
> since a set of chemicals is difficult to store and manipulate. Furthermore, the
> chemical stimulation of taste is analogous in nature, making it impractical to use
> this approach for digital interactions. Therefore, it is evident that a new non-
> chemical approach is required to achieve digital control over the sensation of
> taste. ("Digital Taste Interface" par. 1)

Ranasinghe has designed the Digital Taste Actuating System, an electrical-thermal device that

connects to the tongue and simulates sensations of sour, salt, bitter, and sweet through changes in

electrical currents, rather than in different locations on the tongue. He has incorporated this

electronic application into the shapes of a bottle and a spoon, by which users can add flavor to

their actual foods and beverages without consuming unhealthy portions of salt, MSG, or sugar.

One research participant suggests that these designs can be used to "produce a taste experience

for [chemotherapy] patients having problems tasting their food" ("Taste +").
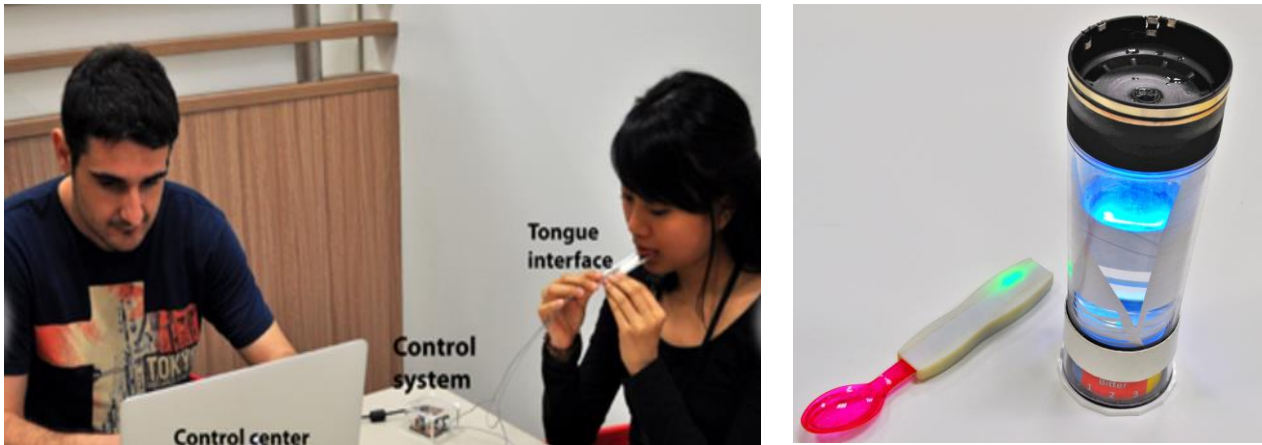
Figure 4: 4a. Digital Lollipop; 4b. Taste+ Spoon and Cup

Source: *Portfolio of Nimesha Ranasinghe.* Web. 5 Mar. 2016

When connected to the internet, Ranasinghe refers to this system as the Tongue Mounted Digital Interface. He and his colleagues propose that future developments in digital flavor creations can be used to enhance digital storytelling, social networking, and overall communication (Abeyrathne 49). These inventions, then, become possible tools for Ulmer's project in developing new rhetorical methods. Ranasinghe suggests that his designs could "[allow] people to share taste and smell sensations digitally with a remote person through existing network technologies" ("Digital Taste and Smell Communication" abstract). He adds, "Sharing these senses are [*sic*] immensely beneficial since those are strongly associated with individual memories, emotions, and everyday experiences" (ibid). This statement shows how Ranasinghe, like Ulmer, promotes punctum as a communication tool. Roland Barthes applies this term to name the connection between details of an image – in his case, a photograph – and the personal and emotional reaction provoked within the body of the viewer, thus adding a subjective,

"obtuse" meaning to that image (Ulmer *Internet Invention* 44). Similarly, Ulmer finds the rhetorical value of punctum in that it forms a logic that surpasses the capabilities of linguistic definition or description, which are used for "recording 'thing'" and, instead, conveys "a moment of experience (a mood)" (48). Ranasinghe's Tongue Mounted Digital Interface, then, becomes as an alternative to Barthes' photographs as a new means of creating the punctive moment between beings through the act of sending a "taste message" to a companion through, what he calls, *TOIP* or *Taste over IP* ("Taste/IP" par 1). Much like today's popular use of emojis to imply often esoteric meanings between communicators without resorting to words, taste messages could signify personal connotations as simple as sending a sequence of popcorn and cola flavors as a way to invite a companion to the movies or as poignant as sharing a flavor-memory of salt water taffy with a former childhood best friend. If such messages can be understood by both parties, then they have established a *consensual domain*, within which two or more organisms can operate within "consensual representations" of their environments (Maturana "Cognition" 43). If such consensual domains can be expanded to whole communities to supplement linguistic dialogue, then Ulmer could achieve his version of *chora* as a "mediating time-space in a virtual mood" in which imaginative collective problem solving can take place (*Internet Invention* 68).

In terms of training and education, researchers in the field of virtual reality are also calling attention to the cognitive benefits of incorporating the chemical senses into their designs. More often than not, smell becomes the focus here because VR training programs are often centered around military or emergency scenarios where food and flavor do not play a big role, but where

reacting appropriately to unexpected stimulus is imperative. Organizations such as the U.S.

Army, the Center for Disease Control, and the National Institute of Health all use versions of

scent stimulation, or *olfactory display* – usually consisting of a fan, a filter, and a series of

scented oils – in their VR simulations. For example, the Army project called Future Holistic

Training Environment Live Synthetic, currently in development, includes not only visual,

auditory, and haptic simulations but also seeks to incorporate such odors as gunfire, smoke,

melting plastic, rotting flesh, the breath of an attack dog, a burning wire in a flight simulator, and

the cigarette of an unseen enemy (Vergun; Vlahos). This inclusion not only creates a more

realistic environment, but prepares the brain and body by associating a visceral sensory image

with a quick and appropriate physical response. Similarly, the CDC's training programs for

outbreak response teams now include VR simulations that expose workers to olfactory stressors

such as diesel fumes, barnyard odors, garbage, dead bodies, and human waste (Fung; CDC).

According to the original project synopsis: "The objective is to enhance deployable staff training

by safely experiencing potentially-stressful sights, sounds and smells in scenarios as well as

mitigating against the possibility of trauma-related psychological harm" (CDC par. 5). The fact

that these important training simulations include the experience of such odors demonstrates a

growing recognition of the weighty overlap between smell images in the brain and intense

emotional repercussions. Neuroscientist Gordon M. Shepherd suggests that this may be due to

the greater number of smell receptors than other sensory receptors in the brain. For example, the

retina contains only three types of color receptors for vision. They register red, green, and blue,

and their overlaps allow us to distinguish other colors. On the other hand, the olfactory bulb

contains hundreds of smell receptors that can combine to create a nearly infinite variety of

patterns (57-75). This intensity of brain activity that takes place during the formation of smell

images perhaps deepens the associated somatic markers, or feelings, that are forming at the same

time. On the other hand, William Ian Miller offers a cultural explanation. In "Darwin's

Disgust," Miller compares the repulsive effects of various sensory interactions and determines

that smells can be particularly frightening because they "are pervasive and invisible, capable of

threatening like poison; smells are the very vehicles of contagion" (342).   Miller also suggests

that members of Western civilization learn to "suppress entirely thoughts of beginnings and

endings [such as] gestation and decay [which] are all condensed into the primal odor of feces"

(345). In other words, the smell of waste is a reminder of our own mortality and our fear of it,

which we try to suppress. Finally, he alludes to Christian descriptions of Hell as a place of

"loathsome evil stenches, a mixture of sulphur and excrement," and reminds us that

"Mephistopheles takes his name from the Latin word for pestilential odor" (349), now reminding

us not only of death, but of the horrors that can take place even afterwards. It is these frightening

associations, combined with the extensive physical engagement of odor molecules with their

many receptors in the brain, that make the use of smell a crucial element in resiliency training of

soldiers and emergency workers. Exposing trainees to these olfactory shocks in a safe

environment builds brain image associations, or somatic markers, that are expected to protect

against the possible psychological trauma of first encountering them in the field of duty. Further,

that the sense of smell is increasingly incorporated into these important trainings supports

Derrida's and Ulmer's advice to utilize the chemical senses as modes of learning that function as

alternatives to, and in some ways improvements upon, the written word. Ulmer states that "the

sense of smell *works nonsemiotically* [and therefore] does not depend on interpretation and

decoding of signs" (*Applied* 95, emphasis in original). In this way, it functions as a "direct invocation of concepts… as distinct from semantic knowledge of the meanings of words, rules, and categories" (96). This type of direct exposure to environmental elements may be the most intensive way to learn about unfamiliar territories and situations. And while these examples depict exposure to some of the worst environments to experience, it stands to reason that powerful smell experiences can also evoke positive reactions by presenting unfamiliar but pleasant fragrances to participants in fields such as cultural geography or virtual tourism and, of course, in autobiographical expressions of personal experiences, such as Ulmer's mystory.

Finally, multiple studies have recently measured the benefits of Clinical Virtual Reality programs that include olfactory display as a digital mnemonic device to provide exposure therapy to patients with posttraumatic stress disorder. Studies performed at the University of Southern California, Emory University, and the University of Central Florida treated Iraq War veterans with VR therapy whereby patients would recall a "trauma memory," which would then be recreated using the digital technology. Reports state that as treatment continued over weeks, patients were able to recall higher degrees of detail, which would then be added to the simulation. Virtual scenes placed patients in deserts or cities, at night, during a sunny day, or in the middle of a sandstorm according to their recall. As details surfaced in the patients' memories, the simulations incorporated more effects, such as the sounds of helicopters, explosions, and human voices, as well as the scents of Arabic spices, cordite, or burned hair (Burch; Gerardi; Rizzo). The power of this type of exposure therapy may well lie in the creative process of building the digital scene. In this way, it combines elements of Freud's

psychoanalysis, which locates possibly repressed details within one's personal memory, with traditional exposure therapy, whereby patients might research, read about, or physically confront available situations related to their fears (Moore).

Virtual Reality Exposure Therapy, or VRET, addresses not just the patient's current interactions with the environment being designed, but at the same time, with the memory of a previous interaction on which the VR design is based. In this way, it supplants the literate process of writing as hypomnesis, or artificial memory. This means that VRET might also become a possible tool in Ulmer's new rhetoric, which, like his process of mystory, emphasizes the reinvention of memories, rather than exact recall, which is impossible, in an effort to mine for the internal and unconscious patterns in personal experience. Memory recreations, then, are nothing more than simulacra, but the concrete effects of the process of creating them, through writing as well as through digital media, prove the relevance of the simulacra. Indeed, Ulmer quotes Derrida as stating that we can never bring forth exact memory, but can only create "'accounts'" and "'monuments'" because that is all there is (*Applied* 69). Ulmer adds Derrida's point that "'hypomnesia is not in itself memory, it affects memory and hypnotizes it in its very inside,'" and that "'the opposition between *mneme* and *hypomnesis* would thus preside over the meaning of writing'" (70), so that writing becomes a creation, rather than a reflection, of reality. The meaning of writing in this sense, like the meaning of building a digital memory, reflects the meaning of the process of antidefinition; meanings derived from embodied enactions and punctive moments; and meanings shaped by the inevitable "blind spot" of an observer who is viewing a system from within that system: Wolfe quotes cyberneticist Niklas Luhmann as

stating, "'The conclusion to be drawn from this is that the connection with the reality of the external world is established by the blind spot of the cognitive operation. Reality is what one does not perceive when one perceives it'" (223). All of these meanings are derived from interactions between the subject's dual perception of both its environment and self and the communication of that perception through various technologies. Based on these related theories, we can see, first, that these VR creations do not function to simulate the remembered event as much as they function to model the patient's internal state as his body reacts to the overlap of recalled and perceptual images in his brain. In addition, what one might consider the obvious difference between a VR experience and an "actual" experience mirrors what Ulmer and Derrida point out about the limits of language. As words, both written and spoken, can capture and convey only a part of one's experience in the world, the still nascent functionalities of VR are likewise limited. That olfactory displays are increasingly incorporated into these simulations highlights the "reversal of phoneticization" (Ulmer, *Applied* 71) made possible by digital media which, although likewise limited, reflects the shifting paradigms of cognition from solipsism to embodiment, as well as the shifting paradigms of reality itself from objective and observable to dynamic, enacted and felt.

<div align="center">Disembodied Consumption</div>

The designs of Jinsop Lee and Nimesha Ranasinghe, and the Virtual Reality training and therapy programs adopted by various government agencies are all examples of the types of technological apparatus emerging alongside the posthumanist paradigm of digital culture. While still clunky, these tools demonstrate the effectiveness of inciting the chemical senses in order to access

emotion, memory, and cognition through nonsemiotic means and, therefore, the relevance of these senses to the invention and discovery of new rhetorical techniques attainable in the digital age. As these inventions progress, leading us toward a future of greater physical interconnectedness with machines and other beings, current internet users have already begun to develop their own techniques for incorporating taste and smell into millions of online productions, including blogs, videos, and social media posts. For example, in 2013, food-based blogs alone numbered over 2 million (Gaille). In the following year, instructional cooking videos on Youtube received 419 million views (Delgado). In addition, social media posts and pictures having to do with cooking and eating are so common as to be innumerable. This explosive growth of food-related web content from around the globe demonstrates a surge in the communication of bodily experiences through the use of electronic information. What the creators and viewers of such content have achieved together is a method for triggering taste and smell sensations without the application of electrodes or scented oils. By composing digital messages made mainly of images, text, and sometimes sound, the mass population of internet users interested in exercising their chemical senses has formed an emergent phenomenon I call *disembodied consumption.*

This term refers to the ability to taste or smell a meal that resides on the other side of the interface, and it requires the modification of the nervous system that takes place in embodied enaction whereby the "organization and structure of the living system" shifts its "posture" in order to perceive previously imperceptible elements in its environment (Maturana and Varela 21). By interacting with food through digital media, flavor and scent sensations in the body and

the brain – along with the particular meanings they convey – can be evoked in several ways, the most obvious being memory, as digital readers and writers recreate previous experiences, much like the patients of VRET can now do. These sensations can also be triggered by the emotional anticipation of future taste and smell experiences based on visual and verbal depictions provided online. Finally, one might even achieve a sense of flavor through cross-cortical stimulation similar to that described in events of synesthesia. This variety of routes by which disembodied consumption can take place adds to the rapidity of its emergence in digital culture.

Memory

The ability to taste food without putting it in your mouth might be compared to the ability that many blind people have to visualize faces and places without the use of their eyes. This phenomenon is addressed by neurologist Oliver Sacks in his essay "The Mind's Eye: What the Blind See," in which a diverse handful of cases demonstrates the vast differences in the process of adapting to one's environment after having lost the sense of sight. Sacks points out that each of the subjects mentioned in the essay had been sighted for several years before losing vision; for those born blind or who lose sight before the age of two, he states that "the very concepts of 'sight' or 'blindness' soon cease to have meaning, and there is no sense of losing the world of vision, only of living fully in a world constructed by the other senses" (27). Likewise, the practice of disembodied consumption is perhaps most successful when performed by users who have some experience with different dishes and ingredients. Victims of food inequality, as well as regular consumers of factory-processed, taste-manipulated products, may not have had the necessary exposure to identify and recall a broad range of flavors, but at the same time, the

growing attention to food in the media may motivate individuals and organizations to find ways to increase access to flavor experiences. Indeed, it can be presumed that having such experience drives one's interest in online food activities and vice versa. With regard to many of Sacks' subjects – but not all – their previous experiences while still sighted formed the memories they later relied on to continue visualizing their worlds. He quotes Dennis Shulman, from one of his cases, as saying, "I still live in a visual world after thirty-five years of blindness. I have very vivid visual memories and images…. I see myself visually – but it is as I last saw myself, when I was thirteen, though I try hard to update the image" (32). Similarly, taste memories are often so powerful that they, too, can be reenacted in the present, their physical and emotional effects seemingly unchanged, with just the slightest nudge. Marcel Proust's madeleine cookie scene from his novel *Remembrance of Things Past* is undoubtedly the most famous example of such a phenomenon:

> I raised to my lips a spoonful of the tea in which I had soaked a morsel of the cake. No sooner had the warm liquid mixed with the crumbs touched my palate than a shudder ran through me and I stopped, intent upon the extraordinary thing that was happening to me…. And suddenly the memory revealed itself. The taste was that of the little piece of Madeleine which on Sunday mornings … my aunt Leonie used to give me…. [And] when from a long-distant past nothing subsists, after the people are dead, after the things are broken and scattered, taste and smell alone, more fragile but more enduring … remain poised a long time, like souls…

> and bear unflinchingly, in the tiny and almost impalpable drop of their essence,
>
> the vast structure of recollection. (48)

Proust addresses all of the elements that make up *flavor* – taste, smell, texture, and temperature – in this portrayal, thereby suggesting a richly layered "metonymic chain of causes and effects associated with the event of [consumption]" (Ulmer, *Applied* 95). At the same time, the memories themselves that are recalled by that first spoonful of tea evade the words that make up conscious thought. This is demonstrated by the narrator's focus on the physical sensation of remembering while unable to capture the content of the memory itself. He says, "An exquisite pleasure had invaded my senses, something isolated, detached, with no suggestion of its origin…. Whence did it come? What did it mean? How could I seize and apprehend it?" (Proust 48). In this moment, he can only conjure up a vague reference to his aunt giving him cookies on Sunday mornings. It is not until several paragraphs and several sips of tea later that he can make out any details of his aunt's home and neighborhood. In this way, Proust's scene, like an episode of déjà vu, depicts a form of embodied cognition that surpasses the traditional metaphysical tools of description and definition and, instead, highlights the *trace*, the "un-representable" (Ulmer, *Applied* 77). Ulmer, like Derrida, seeks a method for writing this ineffable unconscious experience and looks to psychoanalysis, which "has as its 'object' of study precisely what is excluded by, or escapes the notice of phenomenology" (59), and he points out Derrida's efforts to achieve such "a writing that is productive outside the ideology of communication" (60). What psychoanalysis suggests, in support of Proust's example and in addition to the previous neurological and cultural explanations, is that the chemical senses function as a conduit into the

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encrypted memories of the unconscious because of the depth of bodily impressions they allow,

both individually and culturally. Freud, using smell to refer to the body's sexual zones –

abandoned through "the progress of civilization" – states, "'To put it crudely, the current

memory stinks just as an actual object may stink; and just as we turn away our sense organ (the

head and nose) in disgust, so do the preconscious and our conscious apprehension turn away

from the memory. This is *repression*'" (53 emphasis in original). In addition to the nose, the use

of the mouth "as the first libidinal experience," acts as a key location for the storage of

memories. Ulmer explains that "[i]ncorporation – the nourishment process of taking things into

the mouth, but also the spitting out of the breast – provides a model for relationships with the

external world in general" (61). Therefore, as smell and taste are active in the accumulation of

memories, they can likewise be used in their retrieval – or more specifically, to trigger the

process of an event's reconstruction – maintaining in this way the hypomnesic quality of

traditional writing while achieving an effect that is concerned with sensation rather than

semantics. The use of digital tools to incite the sensation of remembering and to somehow

retrieve or convey that which escapes the "conceptual categories of meaning" (97) is the goal of

Ulmer's new rhetoric. In this way, memory becomes the hinge on which traditional writing

swings across the threshold from abstract to concrete whereby the activation of the senses

becomes the primary means of invoking the past experiences of individuals and cultures.

Proust's example demonstrates how taste and smell specifically can travel outside such language

practices to allow the unrepresentable to "[present] itself in the context of … the sublime" (93).

In his illustration, the flavor of the madeleine is not sublime, but its power to trigger a flood of

ineffable memory and emotion is what leaves the narrator awestruck. For new rhetorical

practices in digital media to harness taste and smell in a way that achieves an act of recall

similarly potent, yet without the physical ingestion of the stimulating substance, would require

the same type of brain activity that makes it possible for some of Sacks' blind subjects to

remember how to see. Sacks suggests that, "isolated from the outside, the visual cortex becomes

hypersensitive to internal stimuli [including] signals from other brain areas … and the thoughts

and emotions of the blinded individual" (36). He adds that recent brain imaging research verifies

that, "[recalled] visual imagery activates the cortex in a similar way, and with almost the same

intensity, as visual perception itself" (38). Likewise, with no food in the mouth, disembodied

consumers can stimulate the gustatory cortex through the recollection of taste images in the brain

associated with "thoughts and emotions" suggested by the content of their digital interactions

with food media.

Such media resembles, in many ways, Ulmer's model for a new method of writing – heavily

reliant on personal memory, intended to produce an inclusive and meditative mood, and

subversive of the logocentrism of traditional rhetoric – which he calls mystory. In the mystory

model, writers are encouraged to gather the details of their experiences from within "four or

more different institutional discourses" including family, community, career, and entertainment,

a combination he calls the "popcycle" (Ulmer *Internet Invention* 24). While he encourages

writers to focus on details that invoke the physical senses, he does not emphasize the chemical

senses directly (89). If he did, he would be promoting the digital phenomenon that has emerged

as the personal food blog. An example of how food blogs not only meet the criteria for a new

rhetorical practice that reverses the logical drive of traditional phoneticization, but also

demonstrate the ways in which memory assists the process of disembodied consumption, is the

award-winning site by Jenny Rosenstrach called *Dinner: A Love Story.*
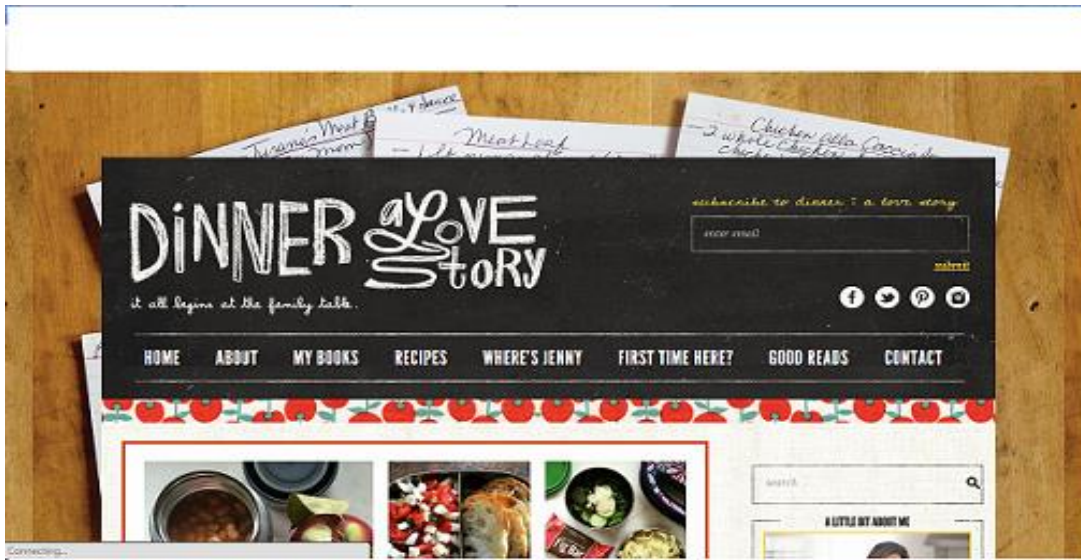
Figure 5. Homepage, Dinner a Love Story

Source: Screen Shot. Homepage. *Dinner a Love Story.* Web. 5 Mar. 2016

An analysis of this site begins with the *homepage*, a term Ulmer uses punningly to signify the

ache of homesickness juxtaposed alongside an allusion to the canonical characters of Ulysses

and the prodigal son, figures representative of the era of literacy, in which one undergoes "the

traditional humanistic … educational experience" causing "the primal fracture" of alienation

from comfort, but also of the mind from the body, "which results when man begins to reflect,

and so to philosophize" (Ulmer *Internet Invention* 75). Ulmer seeks to reverse the focus on

abstract conception that makes up the foundation of humanistic education by emphasizing the

powerful sense of longing to return to one's past, a sense that signifies a – sometimes

uncomfortable – shift in perspective (144). Similarly, in the layout of her opening screen,

Rosenstrach incorporates subtly nostalgic graphics above a combination of both narrative and informative texts in a structure that blends cultural memory with rhetorical innovation. First, the title of the site appears to be written in white chalk against a black rectangular header, which partly covers a quaintly jumbled collection of index cards on which recipes are handwritten in cursive. These elements soften the electronic quality of the blog's digital platform by calling to mind products of past communication technologies. Hayles refers to such elements as skeuomorphs: "details [of the environment] that were previously functional but have lost their functionality in a new technical ensemble" (*How We Think* 89), but the presence of which "visibly testify to the social or psychological necessity for innovation to be tempered by replication" (*How We Became* 17).

Further, beneath the chalkboard header stretches a white ribbon with a cartoonish pattern of red apples with green leaves and stems reminiscent of wallpaper or tablecloth designs popular in the 1950s. This strip of vintage pattern and colors acts as a nonverbal nod to what many Americans – particularly the white, upper-middle class, suburban families reflected on the site – might regard as a less complicated time in their collective memory, thereby directly supporting the author's statement of her overall mission, which is "helping parents figure out how to get dinner on the table" (par. 1). The family joined together around the dinner table becomes the key scene in this reimagination of an idealized past that some researchers have suggested is quite mythical (Avakian and Haber; Julier; Coontz). In this way, the environment designed on the website, and the subsequent world brought forth by the embodied enaction of viewers who engage with the site merely by reading and stimulating personal taste memories, or additionally by physically

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imitating the promoted lifestyle written out in step-by-step instructional recipes, becomes a simulacrum, a hyper-reality, a copy of a non-existent original. As such, it also perfectly models what Ulmer refers to as the "holistic capacity" of virtuality "to accommodate statements that are true-false-secret-lies" (*Internet Invention* 58) and thus the rhetorical power of shifting the emphasis in communication from the literate concerns of ontological authenticity to the electrate preference of establishing and expressing a collective mood among the blog's participants. He explains:

> Left in the body, without technological enhancement, nostalgia is indeed a limited and limiting mood, just as in oral civilization analysis, left unaided in the body (mind), was limited. In electracy the body mood is augmented in the digital prosthesis and becomes capable of supporting sophisticated intelligence…. A literate person reasons on paper… an electrate person feels online. (145)

It is within this seemingly conservative atmosphere that the blog's author is then able to incorporate ideas quite subversive to the actual culinary lifestyle of the 1950s, during which time, thriving brand-name corporations such as Kellog's, Swanson, and McDonald's began to exercise the industrial domination of nature through the promotion of highly processed, artificially enhanced, chemically treated, arguably unhealthy products as desirable food (Shapiro). Contrarily, Rosenstrach encourages consumer behaviors connotative of the "countercuisine" promoted by such 1960s publications *as The Whole Earth Catalog* (Belasco) that are increasing in mainstream popularity today, such as buying local and organic products and supporting sustainability, food safety, and fair trade (DALS link: "How to Shop

Responsibly"). By couching these progressive, and highly political, recommendations among texts and images that provoke the bittersweetness of nostalgia, Rosenstrach's compositions combine punctum with public policy. As such, they demonstrate how the apparatus of new media can be used to bend traditional community discourse in a direction that is more reflexive and yet, powerfully persuasive.

In addition to the mood established by the design of the blog, demonstrative of both Derrida's and Ulmer's call to transgress "the limitations of [abstract] philosophical discourse" (*Applied* 30), Rosenstrach's individual posts, along with contributions from her husband Andy, provide personal taste-related memories that support the phenomenon of disembodied consumption. Taste memories are retained in brain images established by previous sensory stimulation and are recalled when "the prefrontal cortices and amygdala … tell the somatosensory cortex to organize itself in the explicit activity pattern that it would have assumed had the body been placed in the desired state and signaled upward accordingly" (Damasio 184). Damasio calls this an "as-if" pattern of activity, one that is not generated by a "real body state" and is therefore slightly different, but still effective as a "symbol" of a somatic state (ibid). Such taste images may be recalled directly "through consciousness" (ibid) by interacting with images or descriptions of a particular food. Additionally, they may be recalled "through unconsciousness" (ibid) when associated with a particular emotional stimulus associated with that taste. For example, Andy shares a humorous anecdote about serving chicken barley soup to his future parents-in-law in his Brooklyn row house very early in their relationship:

I was a 22 year-old editorial assistant who wore pleated pants and spent a

shameful amount of time watching the Yankees and drinking Heineken. Thinking

maybe it was time to act like a grown-up, I invited Jenny and her parents to dine

one Saturday night in my grime-encrusted living room as a thank you, I suppose,

for being nice to me. Looking back on it now, this must have been the first time

I'd ever entertained. ("Interesting")

Figure 6. Chicken Barley Soup

Source: "Interesting." *Dinner a Love Story.* Web. 5 Mar. 2016

Above the text of the story is a colorful close-up photo of a pot of the chicken barley soup

alongside a bowl filled with soup and a sliced loaf of crusty bread. Below the text is an enlarged

photo, in muted colors, of Andy's now mother-in-law opening a gift on Christmas morning.

Each of these three elements – the two pictures along with the written text – are capable of igniting relatable memories in readers: memories of building family relationships, of youthful efforts to impress a girlfriend's or boyfriend's parents, or memories of the flavors of one's own experiences involving chicken soup, a presumably common dish among the site's reader demographic. The soup memory, for some readers though, may be more physical than emotional. The particular details of the soup image – the way some of the chunks of chicken have begun to shred in the broth, the angular cuts on the carrot pieces, the translucency of the celery signifying its tenderness – bring to mind the soup's flavor for the viewer, even without actually cooking or eating it.

 Researchers have determined that, like blind people who can still experience activity within the visual cortex, viewers of food-related images undergo a stimulation of the gustatory cortex without any actual input into the mouth, nose, or tongue. Such images are referred to as "higher order, more cognitive influences," and their effects are explained by Ivan de Araujo and Sidney A. Simon:

[D]uring event-related fMRI experiments, Simmons et al. had subjects to view pictures of appetizing foods and, for comparison, pictures of locations. Compared to "location pictures" that also activate the visual pathway, food pictures specifically activate gustatory processing areas including the insula/operculum... Therefore, the mere presentation of food pictures, independently of concomitant gustatory activation, is sufficient to evoke neural activity in GC. Importantly, the locations of the activations reported by Simmons et al. were highly coincidental with the purely taste-elicited activity. (par. 19)

This means that taste images in the brain are activated when one merely thinks about food by seeing images of it. Based on a memory of physical taste sensations, then, a participant on the blog might recall the flavors of a similar soup from studying the details of the picture. Likewise, a reader's particular memory of chicken soup, a common "comfort food," may easily be emotional rather than physical, stemming from one's family discourse, which is made up not only of language, but also of "habits and customs specific to that family" (Ulmer *Internet Invention* 81). In this fashion, the amusing story on the blog's post may bring to mind a reader's own soup-related recollections of long-ago visits to a grandmother's house or a childhood bout with the flu. Such recollections, then, would trigger the associated physical experiences of smells or tastes needed to make up the double brain-image pair of idea plus feeling required to constitute a *somatic marker* so that the bodily sensation is triggered by the emotion itself. Freud, Derrida, Ulmer, Damasio, Shepherd, Proust, and others would agree that tastes and smells stay with us, often attached to some poignant moment from the past, to be recalled in a sublime instant of unexpected, indescribable, often delicious surprise.

Anticipation

In addition to the use of memory to trigger the recall of familiar taste experiences, disembodied consumption of new and unfamiliar flavors is also possible through the anticipation of tasting that is evoked by visual and verbal descriptions. As Damasio explains, the purpose of the prefrontal cortex's retention of past brain images is mainly to assist in the decision-making process that connects knowledge to future experience. He suggests that early brain developments necessary for social and cultural survival had to allow, first, "a large capacity to

memorize categories of objects and events." Such knowledge reflects Ulmer's description of Ancient Greek scholars' use of writing to shape philosophy as a system to determine, and then remember, "what is" (*Internet Invention* 304). In addition to this ability, Damasio suggests that the few species that learned to consciously recognize suffering (and pleasure, its opposite) could then develop "a large capacity for manipulating the components of those memorized representations and fashioning new creations by means of novel combinations." He adds, "The most immediately useful variety of those creations consisted of imagined scenarios, the anticipation of outcomes of actions, the formulation of future plans, and the design of new goals that can enhance survival" (261). In other words, we put memory to its best use when we make connections between past experience and future possibilities. Damasio calls the physical retention of these anticipated scenarios "memories of the future" (262). Here, we can infer a difference in such planning performed by the early philosophers, who developed their social hierarchies and infrastructures based on the supposed stability of the classifications and contradictions they themselves created (see Aristotle's *Politics*), and the more flexible process of achieving social well-being, promoted in posthumanism, through the deconstruction of traditional categorical knowledge and the rearticulation of details of past experiences in the service of creativity, innovation, and the formation of new relationships. Ulmer uses the term "heuretics" to name this process whereby the value of interpreting that which is already known becomes superseded by the importance of inventing something new (*Internet Invention* 4).

Several of Sacks' blind subjects demonstrate just such an ability when they discuss how they rely on memory not so much to visualize what they have already seen – as was the case for Dennis

Shulman who still saw himself as a teenager even into his forties – but instead to apply their former experience of the seeing process to current, and even unfamiliar, situations. For example, Arlene Gordon states, "'If I move my arms back and forth in front of my eyes, I see them, even though I have been blind for more than thirty years'" (32).   Gordon goes on to share that she loves traveling and that "'[she] "saw" Venice when [she] was there'" (33). She explains to Sacks how "her travelling companions would describe places, and she would then construct a visual image from these details, her reading, and her own visual memories" (ibid). In this way, Gordon continues to experience new visions by piecing together sights formed from her knowledge of the past with those formed in her imagination. If this can be done to supplement the loss of function in the eyes, a similar practice may support how other sensory perceptions, such as taste, can still take place, not through physical engagement with the external environment, but instead through engaging a variety of embodied cognitive techniques that, when combined in new ways, might stimulate a unique experience.

Derrida models this very style of reasoning through his process of semiotic deconstruction in such forms as catechresis and collage, whereby he combines known signifiers with unexpected meanings and separates written messages from their original contexts to reincorporate them elsewhere. Derrida aims to exploit "the possibility of disengagement and citational graft which belongs to the structure of every mark, spoken or written" to demonstrate its potential to "break with every given context, engendering an infinity of new contexts in a manner which is absolutely illimitable" (Ulmer *Applied* 58). This practice is meant to break the boundaries of literate concepts and meanings accepted as natural in order to capture the attention of

consciousness, thereby, expanding one's perception of the environment, thus *bringing forth world.* In this way, deconstruction and anticipation both take place through an unhitching of known connections in order form new alternatives, even to provoke "the thinking of the very possibility of what still remains unthinkable or unthought" (Ulmer *Internet Invention* 301). The new rhetoric of the digital age requires just such reasoning practices.

Moreover, if we shift our attention to the deconstruction and remotivation of signs developed through senses other than the visual and auditory – those used in reading, writing, speaking, and listening – we can expand these perceptions even further. Indeed, the possibility of new articulations in the digital age increases exponentially when, in addition to verbal language, communicators consider how to produce variations of messages sent through the chemical senses. Ulmer explains that the purpose of such variation is to "move the thinking about our historical moment from literate to electrate categories" (*Internet Invention* 304) as a step in "the evolution of morals" made possible by the "syncretism" of cultural traditions that might result in "a hybrid that is a new, unforeseen, state of mind, different from both of its sources" (303). An important rhetorical reason to pursue the goal of cross-cultural syncretism is that it cannot rely on language as the sole vehicle for communication, thus forcing subjects to exchange ideas through other means. This necessity leads to the focus of conscious attention on the expressions and functions of the body itself, including emotion, passion, and the application of pleasure to combat suffering. The suggestion that such bodily experiences are essential to achieving a "shift in perspective" is what Ulmer calls "the funky hypothesis" (308).

One way that digital citizens practice both syncretism and funkiness is through the decontextualization and rearticulation of their personal chemical sense perceptions, in anticipation of new flavors, by interacting with food travel videos uploaded from around the world. A growing number of individuals now journey to faraway countries – Westerners often traveling to the East and vice versa – to experience unfamiliar cultures through food, specifically looking to eat what the native residents eat rather than what Fabio Parasecoli calls a "domesticated version" of local fare designed to protect tourists from "culture shock" (129). These travelers then publish their flavor experiences – inevitably conveying related historical and political implications including, of course, the complexity of "the task of defining a 'local' ingredient" in the first place (134). The digital practice of creating, as well as viewing and commenting, on such videos, which highlight varied and instantiated embodied experiences, reflects Ulmer's ultimate step in the creation of a virtual mood: a mood that starts with the sense of nostalgia necessary to incite memory that must then merge individual and cultural experiences to create a unity out of their differences, or in Ulmer's words, "to discover within homesickness the generator of aporia" (*II* 301). In this sense, *aporia* is not used to describe an obstacle but, rather, an opportunity to forge an alternative path or environment (ibid), thus utilizing Ulmer's self-reflective process of mystory to establish the collective and inclusive atmosphere of *chora*. One example of such food travel videos that record and share the host's personal experience for the purpose of providing concrete material by which viewers can imagine new relationships with unfamiliar cultures is the YouTube series entitled *Migrationology*, hosted by Mark Wiens.

To begin with, the series' opening video states directly the importance of perceiving environments through the chemical senses. Weins hails his viewers as flavor-seekers by stating, "Some people like to eat, but you love to eat…. You're thinking about what you want to eat for dinner when you're eating a delicious lunch. Don't worry; I do that, too." He then associates flavor with geography and culture by adding, "I have a stomach and a passion for exploring and tasting the everyday food of every country I visit," and then suggests the occurrence of disembodied consumption when he states, "I'm going to be serving you some irresistible food videos…. It is awesome to meet you, another food and travel connoisseur… I will see you on the next … mouth-watering food video. Now, I've got a bowl of noodles to eat" ("Food is the Reason"). Through the use of terms such as "passion," "irresistible," and "mouth-watering," Weins attempts to generate the desire that fuels the anticipation of physical pleasure while easing the sense of displacement that necessarily occurs during the shift in one's perspective. This combination of exposures to both the bodily stimulation required of "funk" as well as the differences in material realities necessary for "syncretism," forms a "mutual inter-articulation" of cross-cultural experience valuable for resisting stereotypes and, most important to Ulmer, for resisting the metaphysics, repression, and logocentrism of Western ideals (*Internet Invention* 309). In this way, Wiens' food travel videos demonstrate the emergence of new rhetorical methods disseminating a posthumanist, cross-cultural ideology through the technological apparatus of digital media.

In addition to offering a description of the show itself, Wiens performs his taste experiences verbally and visually in a way that evokes associated physical reactions in the bodies of his

viewers. This body-to-body dialogue demonstrates the nature of Ulmer's logic of conduction, which "moves from material thing to another thing, from signifier to signifier, without recourse to the abstractions of rules and cases" (156). Indeed, food and flavor contain a plethora of meanings in their histories or, in a term coined by Salman Rushdie, their "eatymologies" (Parasecoli 134). However, in conduction, the physical sensation of communication takes priority, relieving signifiers of some of the rigidity with which they have traditionally been locked to their signifieds. As such, conduction is an attempt, in part, to circumvent the semiotic traps of language, which is why Ulmer refers to it as "the inference proper to images" (10). Conduction, however, is also applicable to the chemical senses. Wiens demonstrates such an application in his episode entitled "South Indian Food in Kuala Lumpur." This dining experience is conveyed, in part, through words. For example, Wiens explains that the origin of his meal, being served in Malaysia, is Chettinad cuisine, from Tamil Nadu, South India. He narrates, in second person, the experience of being served: "A pile of rice, accompanied by complementary vegetarian sides that are served from metal buckets, and your own choice of meat or seafood curry are all piled onto a banana leaf." He also describes the meal's flavors in literal terms, such as "heavily spiced, yet flavor-balanced," and figuratively as "a miracle on top of a banana leaf." The rhetorical power of these verbal communications, however, is secondary to the visual images of the food itself along with the bodily performance of Wiens as he eats. Bright purple beetroot and green okra are blended with creamy yellow and red curry sauces and mixed with white rice as Wiens stirs various components of the dish together with his fingers and eats from his hand, packing large scoops of different combinations into his mouth, and letting grains of rice fall back out onto the banana leaf. With full cheeks, he smiles into the camera,

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rolling his eyes, and shaking his head gently from side to side. This bodily show of sensation

stimulates a sense of identification in the bodies of the viewers.

Figure 7. Mark Weims of *Migrationology*

Source: *Migrationology*. Screen Capture. "South Indian Food in Kuala Lampur."

YouTube. Web. 10 Oct. 2015

Those having experienced any combination of rice with sauce or gravy can imagine the texture it

creates in the mouth. In addition, the vivid colors of the food imply spice and acidity, even to

those for whom these flavors are unfamiliar because viewers can, through analogy to their own

circumstances, connect the details of this scene with whichever personal experiences might be

most similar.   Finally, Wiens' dramatic reaction of physical pleasure provokes a mirroring in the

viewer who, grinning involuntarily, is able to feel it, too. Comments posted beneath the video

testify to this bodily "reading," or "sensing" (Howes, "Scent" 162), of Wiens' digital

presentation. Several viewers mention how his face and body convey the sensation of enjoyment

by saying, "I love ur [*sic*] expression after eating every bite," and "why im [*sic*] I smiling watching american eat malaysian food? :D its because im malaysian? hahaha," or "Great video mate. I like the look on your face when you eat. Only a true food lover knows how it feels." Through Wiens' video performance, he is able to arouse in viewers not only mood, but feeling, the association of sensory – specifically gustatory – perception with a physical and emotional reaction. In this way, participation in such videos builds somatic markers in the brain that begin to familiarize viewers, even with food they have still never tasted, so that they can more easily anticipate visiting, tasting, and learning about new environments. Comments also show how viewers reimagine details of previous eating situations, disengage them from their original contexts, and then reapply them to the current viewing situation in order to create "memories of the future." For example, one post states enthusiastically, "One of my favorite videos because you made the food look so good!! I gotta try India [*sic*] food! I want to eat with my hands like that too…" and another says, "These foods omg complete feast, so tasty. I wish me [*sic*] and all of you taste these one day." Examples that specifically reappropriate flavor images, in a fashion that could be compared in grammatology to the juxtaposition of homonyms, are included in the following thread:

> It really is awesome to see foreigner eating Indian food and really really enjoying it, because I am an Indian. This is what we eat everyday at home. My wife cooks these awesome food [*sic*], but we don't eat on banana leaf. However, we do eat with our hands.

I'm Morroccan and we eat with our hands everyday too. I was a bit shocked that some people find it disgusting! It's not unsanitary we wash our hands and there's ways to stay polite/sanitary and eat with hands haha. I'm so used to it that I forget sometimes that Caucasian people don't do it ahaha:) anyway cheers!

I've always wanted to eat with nan [*sic*] bread, but I can't do it, I just make too much mess! When I scoop food up with the nan, then try to eat it, the food always falls off the bread! I have to stick to a knife and fork :(

In my culture, we use three fingers so two to hold the bread, the thumb to gather the food and then scoop it up:) but i guess it maybe takes practice? Try to ask someone who grew up with those manners they'll show u and it wont [*sic*] be just the fork and the knife anymore ;)

My favorite: Take 2 cups of cooked rice, 3 to 4 spoon or whatever amount you like of "INDIAN YOGURT" and some water. Mix them together good. Then, put some of your favorite "INDIAN PICKLE" on the side (I love the Vadu Mango pickle). Take some of the rice and roll it up into a ball. Then, take some of the pickle and put it on the rice ball. Put the rice ball in your mouth and you will be in HEAVEN. :)

These shared food experiences go from a discussion of home cooked Indian food, to eating with one's hands, to Moroccan eating, to the naan bread common in northern India and the Middle East, to the recommendation of a particular snack, each one inciting the recall of an eating

situation that is similar, but not quite the same. Like a collaborative chain of associations

suggestive of psychoanalysis, these posts apply personal memories of flavor perception –

including taste and touch – to a digital dialogue, not to distinguish differences, but to highlight

similarities across cultures. These corporeal connections create a shifting view of self and others

that allows for global collaboration and that demonstrates Ulmer's conductive logic, which

"include[s] the unconscious dimension of the embodied mind" (*Internet Invention* 146).

Through comparisons and recommendations of specifically taste-related experiences, these

comments demonstrate both the utilization of anticipation to enact the process of disembodied

consumption and also the decontextualization and rearticulation of signifiers necessary for digital

citizens to build newly structured social systems.

Synesthesia

A third route by which disembodied consumption might take place is through the cross-cortical

stimulation of multiple sensory receptors in the brain in a process similar to synesthesia. The

upsurge in recent decades of neurological research on synesthesia demonstrates an increasing

appreciation of both biological and cultural insights that may be revealed from considering how

and why some people – about four percent of the general population (Brang par. 1) – experience

the perception of one sense through the stimulation of another, such as a blue sound or a smooth

number. Additionally, the case for acquired rather than congenital synesthesia made by some

scholars adds support to the argument that our neurons can be "tuned" by such influences as technology, media, and culture (Howes, "Culture" 22).

Research into the causes of synesthesia has resulted in both genetic and epigenetic explanations. First, it seems clear that this atypical perceptual ability runs in families. David Brang and V.S. Ramachandran report that approximately 40 percent of synesthetes claim to have a "first-degree relative" who is also synesthetic. At the same time, these researchers struggle to locate the gene or genes responsible for the trait because of the homogeneity of symptoms. Through their work, they have recognized over sixty variations of cross-sensory combinations; however, some are undoubtedly more common than others. Many synesthetes, for example, experience grapheme-color stimulation, whereby they see numbers, dates, and names of months in consistent colors, geometric patterns, and even textures. Many are also tone-color synesthetes, who visualize specific colors when they hear different musical notes. More rare are those who experience the sense of taste (specific - as in "tomatoes," rather than generic - as in "sweet"), smell, and texture stimulated by the sounds of spoken words and musical tones (Colizoli). In addition, some synesthetes claim to experience a sense of taste stimulated by viewing images of foods or people eating food, and even by looking at nonfood materials, such as copper and carpet ("Is Tasting Something You See"). If, indeed, this ability stems from a gene that has been reduced in the majority of the human species through evolutionary adaptation, Brang and Ramachandran question why and how it has been conserved in a small percentage of the population, and whether it serves a purpose related to survival. One of their hypotheses is that synesthesia may be associated with an increased propensity for creativity and metaphor. Their findings show that

the prevalence of synesthesia is higher among artists and also that the synesthetes they studied reported participating in more creative activities than the nonsynesthetes making up the control group. Further, these researchers suggest that the use of metaphor in reasoning is more common among synesthetes due to their ability to recognize a higher number of associations between seemingly disparate inputs than nonsynesthetes (par. 7).

 This view of artistic creativity as a matter of species survival supports Ulmer's theory that the application of poetic and lateral thinking to community problems ought to be the goal of digital rhetoric as it increases the possibilities of breaking through the limits set by the logic of literacy. Again, literacy suppresses the participation of the body in reasoning. Therefore, increased attention to our sensory perceptions – inevitable and constant in the lives of synesthetes – reopens opportunities for the body, including expressions of emotion and feeling typically confined to poetry, to contribute to new ideas and communications. Further, Brang and Ramachandran's curiosity regarding the conservation of the synesthesia gene directly mirrors Ulmer's observation of the cultural – rather than biological – preservation of creativity and metaphor as somehow necessary to society: "This aesthetic reasoning is not taught in the schools after about the third grade. [However] As a civilization we have preserved the memory of the poetic and we continue sometimes to honor its diviners without knowing why or what purpose might be served by the dimension of language (the remainder) that they operate" (*Internet Invention* 4). Ulmer goes on to suggest that the purpose of poetry, and therefore perhaps synesthesia as well, is to discover the "obtuse meanings of information," that transcend traditional reasoning or signification, in order to allow unexpected identifications across diverse

objects and beings in order to support "the open mind" (268). In this way, the unusual

connections that take place through synesthetic associations resemble those unique combinations

made possible through deconstruction and anticipation except that synesthesia does not always

need to draw from the imagination. Often the trigger (or *inducer*) that provokes a synesthetic

effect (or *concurrent*) is known as *perceptual* rather than *conceptual*, meaning that a physical,

involuntary sensory perception, rather than a thought or idea, causes the association, further

supporting theories of embodiment by demonstrating through yet another means the reflexive

relationship between environmental perception and cognition.

The presence of cross-sensory synapses in the brains of synesthetes is generally explained by two

comparable theories. The first, known as *cross activation*, begins with Charles and Daphne

Maurer's claim that such horizontal connections are actually present at birth in most typical

humans (Maurer 193). From there, it is suggested that the developing brain undergoes a process

of "pruning" whereby the synapses exercised regularly to respond to "environmental stimuli

[strengthen] and the neural clusters with which they are associated [spread]" (Hayles *How We

Think* 99). Unused synapses, which usually include those that connect across different cortices,

simply die off. In synesthesia, the pruning process malfunctions, leaving cross-sensory

connectors in place, their effectiveness maintained through regular use (Brang par. 2).

Challengers to this theory, including Peter G. Grossenbacher and Christopher T. Lovelace, make

reference to the sudden acquisition of cross-sensory perception in non-synesthetes, such as those

who have undergone damage or alteration to particular sensory receptors through injury, illness,

or exposure to hallucinogenic substances. The possibility of these effects taking place long after

infancy seems to demonstrate that the presence of horizontal connections are not necessary for synesthesia, and that synesthetic effects can occur in "normally existing adult networks" (Grossenbacher 40). Explained through *disinhibited feedback theory*, these networks, in non-synesthetes, are said to be mediated so that separate sensory synapses don't converge; feed-forward and feedback messages run up and down along the same sensory pathway. When disinhibited, however, sensory pathways can cross-communicate, allowing the feed-forward *inducer* up one pathway, and the feedback *concurrent* down two or more (ibid). This theory supports the suggestion that synesthetic experiences can be induced in the brains of non-synesthetes.

 What these two theories have in common is that they both demonstrate the brain's plasticity. Either through pruning and strengthening synapses, or through inhibiting some neurotransmissions to take place while allowing others, the brain is proven to adjust to changes throughout one's lifetime. This means that it undergoes not only evolutionary modifications over millions of years, but also epigenetic adaptations based on its interactions with both perceptual and conceptual stimulus from infancy to old age. This phenomenon supports Marshall McLuhan's claim that *sense ratios* can indeed be modified through interacting with various media, from print to television and computers (*Gutenberg Galaxy*), as well as Hayles "case for technogenesis as a site for constructive interventions" (*How We Think* 17). Further, some researchers suggest that the invocation of synesthetic processing through cross-modal technologies is already quite common. Kenneth Suslick, for example, describes the conversion of "any sort of information to a visual representation, whether a simple graph or complex flow

chart" as an example of *intentional synesthesia* (par. 3). He offers a number of other variations to demonstrate that this phenomenon is actually ubiquitous:

> A laser light show, for example, converts sound to sight; infrared imaging converts heat to sight … The scratching of microencapsulated fragrances converts touch into smell (i.e. "scratch and sniff"), and the microencapsulation of flavors converts a touch of the tongue into taste. Musical instruments convert kinesthesia … into sound, a friction match converts movement into thermal output, and even simple handwriting is a conversion of kinesthesia to a visual output. (par. 5)

Suslick adds that the recognition and possible expansion of such cross-associations may by valuable in a number of contexts: not only to "provide a way to avoid our natural inclination to think primarily in terms of sight and touch" (par. 6) but, even more importantly, "when one sense has been severely compromised … to provide a novel approach to sensory prosthetics" (par. 7). These two suggested applications respectively support Ulmer's theory of electrate rhetoric as the expansion of methods of reasoning and communication beyond literate traditions, as well as the theory of disembodied consumption whereby sensory effects – particularly the stimulation of taste and smell – can be induced by digital means. Further, this inclusion of the chemical senses addresses James C. Morrison's concern that hypermedia productions, which combine verbal text with audio-visual elements in a computer interface, "[fall] short of mimicking natural synesthesia" (par. 1) since they, essentially, relegate "all prior media… to the status of text" (par. 67). Certainly, the act alone of combining various media in a composition is not enough to instigate a multisensory response. However, increasingly frequent presentations of nonlinguistic

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messages, such as flavors or scents, through different sensory media, such as images or even sounds (of meat searing in a pan, for example) will, over time, both reduce reliance on the written and spoken word, and generate more physically holistic experiences of digital information. Such responses are crucial to the creation of meaningful and productive communications in the age of electracy.

To locate the widespread emergence of intentional synesthesia – particularly in the form of disembodied consumption – in global online communications, along with the rhetorical implications it includes, one can look to the popularity of social media posts addressing food and flavor. Facebook, for example, is a valuable artifact showing the tendency, in posthumanist society, to document and share the novel gustatory effects of articulations between digital and actual environments, whereby personal cooking and eating experiences are converted into visual formats and vice versa, increasing the brain's conscious attention to taste perception as both activity and message.

According to *Statista*, "As of the second quarter of 2015, Facebook had 1.49 billion monthly active users" ("Number" par. 1). The number of these users who post photos and messages about food is large enough that the practice has been called a "growing phenomenon" (Murphy par. 5), "a bona fide trend" (Wood par. 5), "really annoying" (Pinkham par. 20), and even an indication of "health or mental problems" (Dixler par. 1). This globally burgeoning communicative habit resembles synesthesia not only because it merges perceptions of taste with other senses, but also because it reifies and models neurological overlaps regulating both emotion and action. Further, as an act that influences others to act, it demonstrates how

impersonation functions as an effective rhetorical tool, and as food and flavor continue to capture conscious attention, this practice could arguably fortify the gustatory cortex in millions of users, perhaps even forging and strengthening the synapses by which it connects to other areas of the brain.

Theories of embodiment suggest that perception, emotion, and action are intertwined. Edwin Hutchins explains, "[E]mbodiment assumes that cognition evolved for action, and because of this, perception and action are not separate systems, but are inextricably linked" (par. 10). He adds, "Enaction is the idea that organisms create their own experience through their actions" (par. 11). This implication that intentional actions shape perception and, in turn, cognition directly refutes historical paradigms supporting a separation between mind and body in the same way that synesthesia disproves the intellectual necessity for cultural distinctions and hierarchies separating the senses. Based on earlier examples, associations between thoughts, feelings, and the chemical senses can be powerful. Similarly, neurological research demonstrates the highly sensory motivation behind interacting with social media. For example, Dar Meshi et al. report increased activity in the nucleus accumbens – which, through the release of dopamine, functions to process pleasure and, therefore, drive behavior (par. 3) – during the active management of one's social reputation, an activity common to sites such as Facebook. Other behaviors that stimulate the same brain region include eating food and viewing food images, engaging in or viewing sexual activities, and winning money (ibid), all of which extend from prehistoric evolutionary necessities. Maintaining a good reputation, for example, "indicates that other community members can cooperate with us, and this cooperation provides us with greater access

to resources, which in turn enhances survival rates" (par. 2). That each of these activities stimulates the same area implies that overlapping actions, such as interacting with Facebook by viewing or sharing food pictures, might intensify and enrich the experience of pleasure in a way that is similar to the multiplication of physical sensations made possible by synesthesia. Kate Murphy writes, "Unlike a picture of a flower or a friend, a picture of a meal recalls something smelled, touched, tasted and ultimately ingested" (par. 24). Then to share that picture on social media, thus inciting multiple sensory stimulation in others while they, too, manage their online identities, becomes an intersubjective act with an inevitable affective influence.

The potency of both positive and negative reactions of viewers to this common act of food posting demonstrates its rhetorical effectiveness. Murphy gives the example of Nora Sherman, blogger and deputy director of the City University of New York's Building Performance Lab, who "finds that the pictures she takes of her food are her most popular posts on Facebook [and that] the immediate and enthusiastic commentary … have [*sic*] given her a sense of connection and community" (par. 6). At the same time, an online discussion entitled "Why Do People Post Food Pictures on Facebook" includes such comments as "One chick I went to school with does this. With EVERYTHING. Even if she's like at a bar, and it's just picture after picture of a … pint of beer. WOW, never seen that before," and "Ugh, yes. This one girl is always posting instagrams of her store bought sushi. Just … eat it and shut up" (Pinkham). That the activity of posting personal food images on social media sites can stimulate such intense emotions, both positive and negative, gives it relevance as a source of punctum, based on the intuitive sensations of "attraction or repulsion" it incites (Ulmer *Internet Invention* 68). Further, as a cultural act,

food posting is akin to performance, thus involving the bodies and perceptions of its producers. Those who witness and impersonate this act, either through affinity or parody, expand this process of performance by converging their own taste experiences with other senses, such as vision, touch, and kinesthesia as they post more food images. The exponential expansion of this digitally assisted interaction between bodies and environments across cultures and over time may, indeed, begin to affect how we think. In Evan Thompson's words, "Cognitive structures and processes emerge from recurrent sensorimotor patterns of perception and action" (par. 2). Further support that the repetition of such intentionally synesthetic acts can reshape sensory pathways, even in the brains of non-synesthetes comes from Hayles anecdotal example of "an accident victim who had a stroke that damaged his brain's right side." The victim "entered an experimental therapy program that had him performing routine tasks with his [crippled] left arm and leg over and over." Hayles quotes Nicholas Carr as reporting that "'The repeated actions ... were a means of coaxing his neurons and synapses to form new circuits that would take over the functions once carried out by the circuits in the damaged area in his brain'" (*How We Think* 65). So, if new circuits can be formed in the brain, perhaps even merging normally inhibited sensory synapses, then those "annoying" Facebook friends who repeatedly post food images may actually be taking advantage of the digital era's "new kinds of extended cognitive systems" to "'*suspend* habitual causal patterns and, subsequently to *forge* new patterns through the medium of embodiment'" (Hansen 29, quoted in Hayles 99; emphasis in Hayles). By doing so, they are able to promote and expand synesthetic habits socially through the use of digital tools, thus demonstrating both the rhetorically persuasive capabilities, as well as the technogenetic possibilities, of this particular practice.

Finally, the focus on forming new and unique combinations of sensations and perceptions in the body, such as those that occur through the merger of eating and imaging across social media platforms, answers Ulmer's call for the resistance of the "compassion fatigue" (*Internet Invention* 67) that develops from living in a "society of the spectacle" (xiii). Like Hayles' concern that "the sheer onslaught of information [in the digital age] has created a situation in which the limiting factor is human attention" (*How We Think* 12), Ulmer suggests that the "electrate institution" has a tendency to cause "indifference" and "misunderstanding" due to the incessant exposure to images (*Internet Invention* 155). In order to resist such circumstances, Ulmer proposes deliberate use of digital imaging to incite punctum, thus invigorating the body and capturing its attention. Hayles likewise suggests fusing "attention" with "physicality" in order to "identify and isolate some particular attribute … of interest" with which we might fabricate new tools and "technical ensembles" (91). In other words, we ought to base our new communication and reasoning tools on the physical sensations and perceptual experiences that make up embodied cognition, even in an effort to decontextualize and rearticulate the details of such sensations, so that we might expand our possibilities of understanding. After all, the tools of cyberspace are infinitely more productive in terms of accessing and extending embodied cognition than they are as a means of abandoning our physicality. Even Gibson acknowledges the extent to which embodiment and perception surpass the capabilities of even the most sophisticated computing when he writes, "Something he'd found and lost so many times. It belonged, he knew – he remembered – as she pulled him down, to the meat, the flesh the cowboys mocked. It was a vast thing, beyond knowing, a sea of information coded in spiral and pheromone, infinite intricacy that only the body, in its strong blind way, could ever read" (231).

CHAPTER FOUR- ELECTRATE RHETORIC AND THE INSTITUTIONAL APPARATUS

I WOULD LIKE TO THANK THE ACADEMY: HOW ENTERTAINMENT-AS-PEDAGOGY ALLOWS PERFORMANCE, DISCOURSE, AND MOOD TO EXTEND THE LESSONS OF THE FIRST SCHOOLS

Image Reason

Just as Plato's Academy and Aristotle's school at the Lyceum marked the shift from oral culture's practice of reasoning through religion to literate society's emphasis on science and philosophy, the burgeoning field of entertainment and popular culture – particularly since the last century – signals the invention of new methods of perception, expression, and persuasion, and is now emerging as the primary institutional apparatus of the digital age. Where schools continue to teach the rules of grammar and reasoning as the fundamental means of communication and identity formation, entertainment institutions emphasize techniques that link images to bodily sensations in order to activate the somatic markers in the brains of their viewers, both creating and reawakening emotions in the unconscious. These techniques are not designed to transfer fixed information objectively between sender and receiver, but rather, to provoke affective reactions within each individual they touch.   Further, as the masses themselves become the creators of entertainment media through the use of digital tools, they increasingly interpret their worlds with such reactions in mind, thereby expanding academic and empirical knowledge to

include an embodied cognition that is both distributed and subjective. In this way, works of entertainment demonstrate new rhetorical methods that support Ulmer's purpose of "learn[ing] to use the figural as a mode of image reason, as a supplement to the existing institutional commitment to argumentation and analysis" ("the-learning-screen: Introduction" par. 13). Like practitioners of art, cinema, television, and the internet, Ulmer seeks to utilize the sensory image as effectively as the Ancient Greeks employed the written word. This use of images, though, serves a different purpose. While logic and science are the tools of the literate humanist observer studying the elements of the world as separate from the self, art and entertainment are the tools of the electrate posthumanist participant functioning *as* an element of the world forging relationships with other elements, including living beings, machines, and even images. This participation requires sensory experience and embodied enaction to convey the personalized, phenomenal knowledge that comes from unique events of feeling, seeing, and even tasting, as they reflect individual and cultural moods. This type of knowledge – which both subverts and supplements the noumenal codes of language – depends less on the formal practices of writing and reading that are based on "traditional academic discourse and assumptions" (Ulmer *Applied* xii) and more on creating and witnessing works of imagination and improvisation (229). Because this process engages the entire sensorium, image reason becomes the methodology for achieving "new theoretical paradigms … a new mode of thought that comes after the cultural repressions … the philosophical protocols and evasions, of humanism" (Wolfe xvi). Furthermore, this new mode of thought is imperative for effective collaboration in a digital culture that resides "within the global … setting of the internet" (Ulmer *Internet* xiii). The scale

of cross-cultural interaction taking place in the digital age both requires and inspires techniques of image reason.

One way that the global setting of the internet demands the practice of image reason is by revealing the trouble with language. To begin with, the opportunity for instant international communication suddenly makes obvious the difficulty of clearly transmitting thoughts through words. Language barriers among worldwide users prevents dependence on verbal signifiers alone. The confusion of meaning that can take place during interlinguistic translations, though, is a model for a deeper problem, and one that has always existed – even within the dialects of individual cultures. This problem is the "paradox of meaning" within language that forms the foundation of Derrida's Deconstruction, paraphrased by Wolfe as "the fundamental exteriority and materiality of meaning and communication itself, of any form of semiotic marking and iterability to which [all beings] are subject in a trace structure that … exceeds and encompasses … 'the life/death relation' itself" (xxviii). That is, any attempt at speech or signification becomes a separate entity from the original idea one seeks to transmit because of that idea's distortion – at its inception – by the associations, oppositions, and differences residing among our words. Humberto Maturana reiterates this notion in his explanation of biological autopoiesis by stating that "a description in language and the generative phenomena to be described take place in 'independent and nonintersecting … domains'" (xxv). Finally, sociocyberneticist Niklas Luhmann similarly suggests that "'the activity of distinguishing and indicating that goes on in the world conceals the world'" (xxxii). This means that the act of simplifying concepts and experiences into a communicable verbal format inevitably reduces those concepts and

experiences into something other than what they formerly were. Each of these scholars, then, is

concerned with the incompatibility of words – their semantic denotations and syntactical

organizations – with the existential condition of being in the world.

 Ulmer, following Derrida, argues that this trouble with language can be overcome through a

renewed dependence on art, including poetry, as rhetorical discourse. Describing poetry as "any

non-scientific use of language," Ulmer suggests incorporating it regularly in the classroom

creating a "double (art-science) discourse," by which "information [becomes] enframed by a

mise en scene responsible for exceeding and breaking the mastery of the knowledge discourse"

(*Applied* 184). In this way, imagery and embodied experience become the predominant

mechanisms for the transmission of information. Such transmissions may, in fact, increase the

efficiency of communication since, as Ron Burnett argues in *How Images Think*, "consciousness

and the links among perception, conception, and the electrochemical interactions of the brain are

as dependent upon images as upon memory and language" (51). Again, interacting with images

– rather than with the premises of logic, for example – is an affective act requiring some level of

physical participation, even if it is internal. Therefore, rather than suppressing the sensory

channels by which we make meaning in order to isolate strictly analytical verbal interactions,

these scholars suggest that we stimulate the senses and take advantage of their effects. Treating

the use of images as academically necessary, rather than superfluous, bridges the distance

between the scientific and the aesthetic, demonstrating that "art in its purest form [has] a

contribution to make to the practical world" (*Internet* 2). A major component of this

contribution is that images and imagery-based works of art offer a means of expressing that facet

of experience that defies words, referred to as the "ineffable," the "uncanny" or, in the words of Emerson, "'the evanescence and lubricity of all objects … which lets them slip through our fingers when we clutch hardest'" (Wolfe xxxii).

Through image reason, art (and – stemming from art – entertainment and new media) not only allows for the expression of the ineffable, but it also makes such an expression productive. As an example, Ulmer's mystory demonstrates how digital citizens, by working predominantly with sensory images, can discover the sources of their own thinking and learning patterns based on what moves them personally. This self-knowledge, then, becomes "a vehicle … not explored for its own sake" (*Applied* 231) but, rather, applied to larger societal problems in order to devise innovative solutions. As Burnett explains, interaction with images "is not a passive activity" (40); rather, it requires processing within the body whereby associations are formed between the sensory stimulus and the internal apprehension of the experience itself. In this way, the act of perceiving is inevitably creative. This embodied creativity, once stimulated, might then be applied to new situations in a move similar to knowledge transfer. Ulmer calls this "the flash of spirit, the shock required to awaken thought to the possibility of invention" (*Internet Invention* 234). Further, by including sense impressions in the solutions to problems, collaborative groups become "wired communit[ies] … [which are] fundamentally 'creativogenic'" (6), meaning both creative and productive. Ulmer's use of the term "wired" described groups that are not only connected physically and technologically, through the computer interface that extends each user's sensory perceptions around the globe, but also emotionally, through the artistic expression of each user's interior condition. As such, the reference to wires becomes an analogy for the

diffusion of affective energy throughout a circuit of participants connected by an instantaneous

sensation, or "secularized epiphany" (61). Ulmer recognizes this process as the rhetorical

method of conduction. In the same way that heat is transferred along a metal rod, the *conductive*

logic necessary to guide the productive use of images is founded on a sense of movement and

articulation, a "'flow of significance from one semantic field to another'" (Hawk 248). That this

effect is achieved through sensory perceptions and reactions, aided by the electronic prosthesis of

the internet, rather than through traditional argumentation supports Burnett's assertion that "the

notion that viewing or listening is passive has contributed to a profound misunderstanding of

what 'interactivity' means" (40). One does not necessarily touch a keyboard or mouse in order

to participate interactively; what matters most is one's emotional engagement with the image,

object, or other living being. In image reason, interactivity takes place through conduction,

which Ulmer offers as an addition to "the inference methods invented in literacy – abduction,

deduction, induction" (*Internet* 10). In doing so, he extends Aristotelean rhetoric and reasoning

into the digital age.

Further support for conduction as an extension of traditional rhetoric comes from the work of

Derrida, who calls special attention to the visual characteristics and sensory effects of writing

itself. Derrida argues that these characteristics have been suppressed since the invention of the

phonetic alphabet, whereby writing was subjected to a position both subordinate to, and

dependent on, the act of speech. As such, words could only represent the concepts they have

been joined to in dialectic discussion. This phonetic emphasis, Derrida asserts, ignores the

graphic qualities of writing such as punctuation, spacing, and spelling. By instead highlighting

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these features through playful misspellings, homonymic substitutions, puns, anagrams, and the invention of neologisms, Derrida complicates language, bending its rigid codes, breaking apart its signs, and giving it life. By reversing the hierarchy of the senses through which language is experienced, placing the visual over the auditory (in this case), Derrida expands the signifying possibilities of words, restoring to them, what he calls, a "'*double value* – ideographic and phonetic'" (Ulmer *Applied* 8). By acknowledging that language takes various forms and can stimulate different senses, Derrida multiplies the opportunities for meaning-making, thereby unhitching signifiers from any one intended signified and increasing the complexity and the dimensions of words. As a result, he makes language resemble more closely the nonlinear, sensory, even synaesthetic, model of thought and experience increasingly recognized by embodiment and posthumanist theorists and described above as "ineffable," the model of thought Ulmer seeks to exploit in image reason. Writing as a visual form, stemming from the mythogram, is imbued with concrete perceptual qualities long suppressed "by the axioms of dialectics [and] considered traditionally to be mere ornament, not suitable for fostering true knowledge" (xii). By intentionally highlighting writing's condition as a sensory stimulus, though, Derrida (and, likewise, digital communication) not only reinvigorates the discursive value within the visual image, but also opens up the exploration of communication through the entire sensorium, basing meaning on concrete, heterogeneous experiences, thus prompting endless signifieds from within every expression. In this way, the term *writing* comes to include a variety of expressive forms such as "'cinematography, choreography, pictorial, musical, [and] sculptural "writing"'" (10), expanding the idea of a text to include gestures, objects, and even flavors.

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By considering flavor to be a form of expression, Derrida intensifies his subversive work to undo the hegemony of logocentrism. He suggests examining, in Ulmer's words, "the other function performed by the same organs that make speech possible … the surplus of operations excluded from the philosopheme" (55). That is, while traditional rhetoric requires the reduction of thought and experience into a strictly verbal code, thereby concentrating only on the mouth's oratory function, Derrida addresses the absolutely inevitable process of eating and how that process, both literally and as a model, overshadows the interaction among all living beings in terms of discourse, politics, religion, culture, memory, and the nature of thought itself. In an interview regarding his lecture "The Tropes of Cannibalism," for instance, Derrida describes "the very notion of comprehending as a kind of incorporation" (Birnbaum par. 6) and, in turn, characterizes efforts to understand other beings – including animals, both human and nonhuman, as well as texts – as "tropes of incorporation" (par. 24) and "tropes of cannibalism" (par. 7) referring, in particular, to biblical hermeneutics as an act of "sublimated eating… parallel to the Holy Sacrament" (par. 6-9). This reference to the Holy Sacrament as an example of actual physical consumption, rather than an example of religious faith, Divine presence, or even personal identity, demonstrates the use of image reason as a direct appeal to embodied knowledge. Indeed, the combination of ingestion, recitation, and precise movement required of participating in the Communion ritual provides deep reinforcement of a particular understanding of the world through the stimulation of all of the body's senses at once. The importance of invoking taste and smell in such a ritual reflects how rhetorically powerful a holistic sensory experience can be. Derrida's point related to this situation is that to learn, to know, and to remember information, events, even loved ones, requires assimilation and interiorization; to

retain any knowledge is an act of embodiment. As such, flavor becomes equivalent to meaning in both the figurative and the literal sense.

In other works, Derrida equates eating and understanding through an examination of the translating process, which reflects a connection between cultures and also provides a critical opportunity for playing with language as a means of further expanding the possibilities of the signifier. For example, in "What is a 'Relevant' Translation?" Derrida justifies his choice of the French verb *relever*, which means "to season," in his translation of Portia's speech in *Merchant of Venice* when she recites the line "When mercy seasons justice," even though the term relever is used more commonly in French cooking to signify "giving *taste*, a different taste that is blended with the first taste… and in the very process, *more taste*" (195). Derrida argues that his choice, as opposed, for example, to the verb *tempere*, meaning "to temper," offers a wider variety of signifying opportunities by reaching out to the chemical senses. As such, the responsibility of providing a *relevant* translation becomes one that does not merely attempt to "[convert] … a text at its word" or even to "transmit the idea, the figure, the force" (180) but, rather, one that maintains whatever sense may be derived from the original, and then also enhances the flavor of the original by providing an opportunity for the reader to make unexpected associations with the text by acknowledging the words' effects not only on the ears or eyes, but elsewhere in the body. Translation, as an example of image reason, opens up the opportunity for suggestion and play among signifiers as "equivocal words" by a method that is more "punceptual" than "conceptual" (Ulmer *Heuretics* 228). Rather than linking a word to the idea it is expected to represent, translators link words to other words, similar to punning, thereby

creating a space outside traditional meaning-making while also forging links both "across the cultural and linguistic intervals of global societies" (*Internet* 156), and in many cases, across the physical senses of the body. In this way, the ideal tool to combine all three of these effects becomes the macaronic pun (the name obviously stems from a food-related term itself), which demonstrates how the rules of language can be modified so that meanings are enhanced with hints of heterogeneous experience. The value of such a technique becomes nothing less than the reimagination of the purpose of verbal codes to stimulate embodied knowledge rather than to structure analytical thinking. In image reason, words serve to facilitate sensory interaction, reflecting "a new relation between and among thought, language and writing, and hence a renegotiation of the functions of truth and history in a new paradigm" (Ulmer 166). In other words, the playful association between signifiers accomplished by considering their effects on the senses, particularly in communication across cultures, perhaps even across species, is an imperative factor in the scholarly quest to achieve the shift in thought that will allow the full emergence of a posthumanist apprehension of existence in today's world.

These cross-associations, to reiterate, are not only between the verbal and visual. They inspire multisensory implications, further validating the relationship between lexical and embodied knowledge. Derrida uses the French term for seasoning food to present a model for writing practices that increases and complicates layers of possible associations in contrast to the traditional method of dialectics, which seeks to reduce signifying possibilities in an effort to unveil one correct truth. Seasoning in language, for Derrida, takes place through the acts of punning and translation, and especially the combination of the two. Just as the complexity of

flavors in a dish of food can reflect its ingredients' journey across geographic and historical

boundaries, the combination of verbal terms connected by macaronic punning provide a point of

articulation between "two languages and two cultures, two cultural memories with the

sociohistorical knowledge embodied in them" (Derrida "What is" 179). This type of writing

helps to create the environment of syncretism that Ulmer claims is a necessary component to

global digital communication "not as a space to be crossed, but as a field to be occupied or

inhabited" (Ulmer *Internet* 177). As such, both entities – foods and words – when translated (or

cooked) with *relevance* provide an economy of representation whereby the bounty of flavors and

meanings contained within – the tastes and the traces – form a circuit of conduction so intricate,

that among innumerable heterogeneous participants around the world, they inevitably provoke

sensations of recognition and affinity. That this effect can be achieved through visual and

gustatory experiences alike proves that understanding is a process of the body and of the entire

sensorium. Thus, even the chemical senses participate in image reason.

The purpose of image reason, then, is to access and utilize ways of thinking and knowing other

than the analytical, which has been so masterfully harnessed in the era of literacy. By using

words poetically, along with sensory images, Ulmer claims it is possible to expand traditional

rhetoric, adding to Aristotle's *logos* the practice of conduction as an embodied, even performed,

mode of persuasion; adding to *ethos* a variety of nonlinguistic methods of discourse; and adding

to *pathos* more than just a verbal stimulus of the emotions but, rather, whole digital

environments designed to involve all of the senses, including smell and taste.   As Ulmer

explains, these expansions represent a Heideggerian metaphysics based "not [on] the properties

giving essence or substance of things, but [on] the properties producing emotional effects of atmosphere and mood" ("the-learning-screen": Introduction par. 3). In this way, image reason is founded on aesthetic techniques stemming from poetry and art, which can now be located throughout popular culture and entertainment.

Performance: Evolution of a Still Life

Aristotle claims of *logos*: "A statement is persuasive and credible either because it is directly self-evident or because it appears to be proved from other statements that are so" (*Rhetoric* Book One par. 15). In other words, a listener is influenced by words that are believed to be true or proven to be true by more and different words. He goes on to state that "none of the [intellectual] arts theorize about individual cases. Medicine, for instance, does not theorize about what will help to cure Socrates or Callias, but only about what will help to cure any or all of a given class of patients … individual cases are so infinitely various that no systematic knowledge of them is possible" (ibid). This means that the experiences of individuals are not appropriate topics for rhetorical interactions.

Ulmer, on the other hand, reverses both of these claims in order to extend the art of logos into the digital era. First, he pulls the abstract reasoning process into the depths of the physical body by suggesting that the verbal communication of ideas is hardly sufficient. Indeed Aristotle admits that many rhetorical events take place "in the hearing of persons who cannot take in at a glance a complicated argument, or follow a long chain of reasoning" (ibid). Instead, Ulmer quotes performance artist Joseph Bueys to suggest that meaning is more effectively conveyed, or

"disseminated" by a process like "infiltration [that] spreads slowly outward with time" (*Applied* 248). Bueys suggests the "physical process of capillary absorption" as a model for communication, emphasizing the concrete changes that take place in the body and the brain when new information or a new belief becomes embodied. Ulmer calls this "communication by *contamination* [demonstrating] the permeability of boundaries as membranes" (ibid emphasis in original). In other words, to accomplish the goal of logical reasoning, which is persuasion, one benefits from affecting one's audience physically. To achieve this, one must use more than words. One material Beuys chooses, for example, is fat, which he smears into the walls and floor of a room in his work *Fat Corner*. Not only does the gradual expansion of the fat demonstrate the movement of ideas across the boundaries of space, time, and even skin, but in addition, the appreciation of the fat itself requires the exercise of the whole sensorium. As Beuys mentions, "The smell of course permeates everything" (ibid). The effect of such a composition on those who experience it is inevitably emotional, whether it piques fascination or disgust, not only because of the eccentricity of the work, but also because of the stimulation of the body. As Damasio, Sacks, and others have demonstrated, emotions are provoked through the incitement of the senses. Beuys and other artists use this connection as a rhetorical tool to provoke reactions in their audience. He states, "My art touches people who are in tune with my mode of thinking. But it is clear that people cannot understand my art by intellectual processes alone, because no art can be experienced in this way. I say to experience, because this is not equivalent to thinking: it's a great deal more complex; it involves being moved subconsciously" (249). By using the work of Joseph Beuys as an example, Ulmer demonstrates his point that the inclusion of artistic techniques – such as the stimulation of multiple senses, including taste and smell, the use of

physical materials and quotidian objects as models for communication, and the complication of media in order to maximize the possibility of potential signifieds within every message – can expand the logical process by addressing "the body and psyche at the same time" (217).

Ulmer's second reversal of Aristotle's logos calls attention to the "individual cases," which Aristotle suggests are not to be considered in the exercise of theory, claiming that "haphazard materials, such as the fancies of crazy people" are not fit for the construction of a proper syllogism (*Rhetoric* Book One par. 15). Contrarily, Ulmer, along with Maturana, Varela, Wolfe, Hayles, and Luhmann, recognizes that personal experience is the very foundation for understanding the rest of the world. As such, he points out the importance of the mystory being "composed in the middle voice," explaining that "[e]lectracy in general shifts emphasis from the nearly exclusive attention to communication within the 'I-s/he' system, to attend more to the 'I-I' system" (*Internet* 57). He quotes "the Russian semiotician Yuri Lotman" as stating, "'The place of autocommunication in the system of culture … is far more significant than is commonly supposed'" (ibid). Likewise, Wolfe refers to the terms *self-referentiality* and *recursivity* when suggesting that all systems, including the biological and the social, "use their own outputs as inputs in an ongoing process of 'self-making' or 'self-production'" (111). Burnett agrees, describing perception as a creative act, which forges "interconnections … between internal and external images" on an individual basis (55). Finally, Derrida adds that meanings made through the perception of images rather than words exist outside of logos in defiance of generalization and reason. As such they resist any intellectual or practical interest, but only a moral one. He states, "These meanings are not posited as objective truths. The moral interest that we take in

beauty, moreover, presupposes that the trace and the wink of nature do not have to be objectively

regulated by conceptual science" ("Economimesis" 15). Therefore, rather than suppress or

exclude ideas that might contradict established generalizations, as the syllogism must, which in

turn devalues unique experiences, image reason seeks out these differences in embodied and

emotional events in order to highlight the presence of the trace – the ghost of all possible

associations – in any communication. The concrete and sensory materials used by artists – the

tools of physical perception – then, become the tools of image reason.

Both an art form and an early example of food-based media – the still life painting –

demonstrates just how the incitement of the body, particularly through the chemical senses,

effectively reflects these characteristics of an image-oriented logic. Indeed, for the very same

reasons that it functions to subvert the logocentric ideals of traditional rhetoric, the still life

resides at the bottom of the hierarchy of artistic genres established by the French Academy.

First, as Carolyn Korsmeyer explains in *Making Sense of Taste,* its depiction of trivial objects,

particularly food items, as artistic subject matter invites disapproval based on the traditional

belief that they cannot inspire abstract thought (8). Indeed, there is nothing more symbolic of the

everyday monotony of physical existence than the constant necessity of food. Image reason,

however, directly contradicts this assessment by demonstrating that such objects are valuable

specifically because they can "eliminate the gap separating the general public from specialists"

and, in doing so, symbolize a concrete and sensory knowledge that belongs to anyone and can

therefore be applied to the most poignant of experiences which, in turn, arouse "the most

complex or abstract levels of thought" (Ulmer "the Puncept" 176). Trivial objects, in fact,

become exemplary models for abstraction for in their heterogeneity of context and meaning, they become universal in their ability to affect the senses and, often, the spirit. It is often such everyday items as food objects – or even a pair of peasant's boots – that become fetishized, a process that exemplifies the value of such quotidian subjects in art. Ulmer explains that, "[t]he fetish manifests the shift of the commonplace to the singular, part of the reversible exchange between the idiomatic and the universal that characterizes exemplarity, since the fetish is an object 'addressed' to an individual (the example will not work for everyone)" (*Applied* 115). In this way, the still life defies syllogistic generalization by depicting different assortments of objects each time. However, hidden within this customization there exists an opportunity for punctum, a chance for possible recognition by certain bodies. This recognition sparks the creative mechanism in the body that results in conduction, which then links being to being in a network of affinity and empathy. As such, the still life, particularly when inciting all the body's senses including smell and taste, rivals the history painting at the top of the hierarchy in its possible effect on the viewer. As Derrida asks, "why should the sublime be the absolutely large rather than the absolutely small?" (ibid).

This relationship between conduction and fetishization reveals the purpose of "Writing" in electracy, which is to become "a prosthesis not so much for the mind but for the genitals (not for consciousness but for desire)" (117). Undoubtedly, another reason for the deprecation of the still life, as mentioned by Korsmeyer, is that it threatens to inspire immoral behavior and corrupt the soul, "tempt[ing] one to indulge in the appetites of eating, drinking, and sex" (2). Through this stimulation of embodied experience, the still life violates Aristotle's admonition against self-

indulgence by directly invoking a sense of desire for physical pleasures. At the same time, by illuminating such extremes of bodily existence, the still life inevitably reflects the body's limits, achieving conduction not only through the exhilaration of visceral stimulus, but also through the reminder of impending death and decomposition. In this way, the most effective element of the traditional still life for inciting conduction is likely its frequent inclusion of perishable, or perished, items such as wilting flowers, rotting fruit, and dead animals – symbolic of mortality and the inclemency of time, and justifying the French expression "dead nature" – which tend to evoke a sense of disgust, particularly as the term refers to putrid tastes and smells.

Kant describes disgust as a sensation that "'penetrate[s] the body' … affect[ing] 'the whole nervous system'" (Menninghaus 1), thus augmenting the power of physical stimulation even more. Aurel Kolnai explains that the invocation of the proximal senses is required to achieve this visceral reaction, the most effective of which is smell, followed by touch, and then sight. He presents an "olfactory 'circle of associations – disgust- smell- corruption- decay- secretion- life nourishment'" (17). These associations, once again, demonstrate the inherent repulsion that coincides with acknowledging the finitude of physical existence through the enaction of one's own biological functions, such as eating and eliminating. With the smell of decay as the key trigger for the disgust sensation, Korsmeyer then expounds on how a visual image, such as the still life, can achieve this olfactory reaction: "[T]he exploitation of a disgust response in art is possible to a large degree because as a rule the primary bodily senses of smell and taste are engaged only in imagination, and visual or imaginative evocations of disgust …. We imagine but do not smell. [However], the images conjured up … are sufficient" (*Savoring* 88-110). In other

words, the image triggers the imagination, wherein the terror of death resides. This emotion, then, elicits the physical reaction of disgust, whether or not the dead object is actually perceived through the nose. Finally, when a still life presents images of food, even without the inclusion of skulls, game animals, or other decaying objects, the association with death and violence is still inevitable. Korsmeyer quotes Margaret Visser's observation that "'[a]nimals are murdered to produce meat; vegetables are torn up, peeled, and chopped; most of what we eat is treated with fire; and chewing is designed remorsely to finish what killing and cooking began'"(77). In this way, the presentation of any edible material, whether painted as in a still life, or smeared on a wall as in Joseph Beuys' *Fat Corner,* has the ability to evoke the deepest of bodily sensations as they relate to the intensity of facing not only one's own death and one's ability to destroy others, but also the equality with which time devours all. In this way, the presentation of the edible and odorous becomes an important technique in the method of conduction, invading the body with palpable experience, and the still life, at times both seductive and repulsive, becomes the precursor of today's food media productions that currently transmit Ulmer's image reason across embodied, posthumanist digital citizens.

Beuys' work exemplifies how the modernist and avant garde artists of the twentieth century reimagine the still life by incorporating movement and physicality into the traditionally inert representations of inanimate objects. By presenting their subject matter from a variety of angles, as in Warhol's ballpoint pen sketch *Five Views of an Onion*; by highlighting the materials used in

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their work, as in Joseph Stella's crayon drawing of a single eggplant; or by creating oversized, three-dimensional sculptures, such as Claes Oldenburg's giant fried egg out of canvas, these artists begin to accentuate the relationship between their bodies and their work.
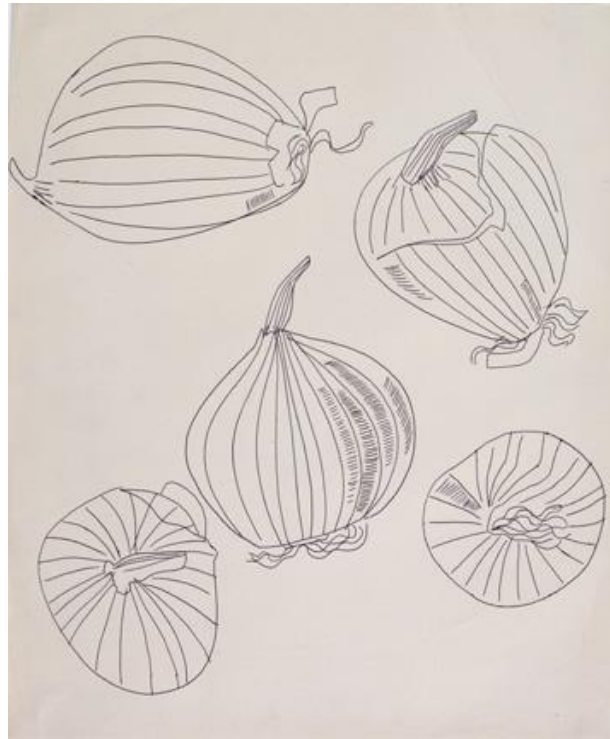
Figure 8. Five Views of an Onion

Source: "Still Life and Observation Drawing." *The Warhol.* Web. 11 Mar. 2016

One can imagine Warhol reaching out to rotate the onion, or Stella scratching away in blue and black wax. In this way, they continue the Dutch tradition of reflecting a sense of equality among all beings, but equality in life rather than in death, in regeneration rather than decay. Their often whimsical appropriations of elements of the traditional genre, such as food items, further sublimate those circumstances typically understood as mundane. This sublimation is required by Ulmer and Derrida as a response to traditional rhetoric. Indeed, due to this intense focus on the

quotidian, along with their experimentation with media and proportion, such works could be said to stimulate those "fancies of crazy people" that Aristotle insisted could never fit into his logic. In this view, the modernist and avant garde artists who depict common food items – not as realistic representations, but as conspicuous products of their design – merge the singularity of their creations with the separate and personal experiences of each and every viewer of their work. In doing so, they not only illuminate the difference between the realms of art and life – a difference that the traditional still life conceals – but they also reveal the interpenetration between the two. This move foresees the dissolution of the boundary between imagination and being, a condition crucial to image reason, and thus digital rhetoric.

Further support of this dissolution comes from Derrida's suggestion that, in any act or genre of writing, including writing with images, one "'should always take the situation of the marks into account; in particular that of utterances, the place of senders and addressees, of framing and of the socio-historical circumscription'" (Ulmer "The Puncept" 166). According to this way of thinking, the diverse contextual factors unique to every creative situation must be illuminated rather than minimized since it is their differences that unlock the semiotic possibilities of the work itself. In this view, the artists' physical interactions with food in their personal lives, as documented in Mary Ann Caws' collection *The Modern Art Cookbook,* become equally as valuable to image reason as the relationship between their drawings and sculptures and the lives of their viewers. By writing journal entries and anecdotes about cooking and eating and by recording recipes, such as Pablo Picasso's herb soup, Frida Kahlo's red snapper, and Jean Renoir's potato salad, these artists chronicle the ultimate embodiment of their environments.

Derrida refers to such documentation as "a kind of 'parasitism of language on the system of [art]'" (*Applied* 108) and, in this case, on living and eating in a mindful and artistic fashion. This parasitism, though, is worth investigating as it links the verbal with the sensory, bridging the experiences of the literate self with the posthumanist animal. Ulmer explains that "Derrida's strategy … is to examine … all words associated with painting (titles of pictures, letters written by painters, catalogs, notebooks, aesthetic philosophy …) as a passkey to the art of painting itself" (ibid). Likewise, an examination of Caws' collection of food-related writings reveals the power of physical incorporation in achieving conduction. Through documenting their cooking and eating, these artists record living performances of interactive still lifes, revealing both a literary and a literal embodiment of the genre. For example, Alice B. Toklas describes preparing a poached bass for Picasso, "decorated … in a way that I thought would amuse him" (78); Salvador Dali admits his own visual fascination with food, writing, "I like to eat only things with well-defined shapes that the intelligence can grasp. I detest spinach because of its utterly amorphous character" (82); and Francis Ponge considers "the orange's peculiar way of perfuming the air and delighting its torturer" (194). Such writings are evidence of the intent and attention with which each artist enacts the passage of the external world into the internal space of the cognizant body. In this merger of life and art, gustatory activity becomes a demonstration of the incorporation that Derrida argues best reflects "the very notion of comprehending" (*Eating Well* par 6). Further, the apprehension of one's world through an emphasis on it flavors and fragrances forces a shift in perspective from the Western humanist emphasis on the visual. This in turn, reorients the focus of comprehension itself from the qualities of observable objects to the effects on the perceiving subjects who, while diverse, share in the knowledge of such

experiences as disgust, pleasure, surprise, and amusement. In this way, image reason illuminates the likenesses, rather than the differences, among humans of all cultures and among all living beings.

In the digital age, still life performances pervade television and the internet in the forms of instructional cooking programs, cooking competitions, and travel shows that focus on regional cuisine. As such, they carry on the traditional still life's capabilities to stimulate the appetite, to sublimate the mundane, and even sometimes to solicit a sense of disgust – particularly when ingredients, like lobsters or snails, are still alive and moving or when foods of other cultures, like insects or eyeballs, seem all too unfamiliar. In addition, such programs also reflect characteristics of the Modernist still life, which emphasizes the overlap of art and life and merges embodied experience with creative production. In addition to these characteristics, the digital still life demonstrates the use of electronic tools to arrange food-related images and performances in ways that effectively reflect "the nondiscursive and imagistic dimensions of thought and communication …. (for a culture), whose experience of language is largely shaped by continuous exposure to cinema and television" (Ulmer *Applied* 265). In other words, through multi-media techniques like appropriation, juxtaposition, and montage, the digital still life has the capacity to engage the embodied and associative cognition deliberately suppressed by the rules of Aristotelean logic and enhanced by the process of technogenisis. Further, the specific incorporation of chemical sense stimulation into these audio-visual compositions adds to the already expansive disruption and rearrangement of strict semiological couplings accomplished in Deconstruction. While the works of Derrida and Ulmer demonstrate that meaning can be made

outside of the rules of language by associating signifiers to other signifiers through such techniques as metaphors and puns, the digital still life further widens this scope of concrete logic by specifically including objects of flavor and fragrance, which correlate with sensations retained within the body. And while productions of digital food media achieve these effects at all levels of sophistication and effectiveness, the ultimate example of this merger of cinematic writing and disembodied consumption may be Anthony Bourdain's Emmy Award-winning CNN series *Parts Unknown.*

In the series, Bourdain visits cities and countries seldom highlighted in American travel shows, places such as Myanmar, Libya and Ethiopia, in order, as he states, to "eat and drink with people without fear and prejudice" (*Anthony* par. 1). By recording these moments of commensality and arranging them among other cultural scenes like crowded streets, ancient buildings, or rural laborers, the show's creators evoke a physiological sense of recognition while in the presence of the unfamiliar. This effect is amplified not only because many of these scenes of foreign lands include some commonplace detail that ameliorates the alienation they might otherwise suggest, but also – perhaps even more so – because the style of presentation blends the traditional with the avant garde, encouraging both logocentric and deconstructionist methods of "reading." Just as, according to Ulmer, Plato's dialogues formed a "hybrid" conjoining the eras of literacy and orality by depicting speaking characters who pattern their conversations "to take advantage of the material features of alphabetic writing" (141), Bourdain's series ties together literate elements, such as informative explanations of political events and dialectical discourses with

local citizens, with electrate elements, including sequences of images with no explanation and the use of news footage not to report facts, but to create a particular mood.

For example, the second segment in the *Parts Unknown* Iran episode contains a series of clips from the twentieth century – including some graphic scenes from the Iranian Revolution and the hostage crisis – overlaid with a child's voice narrating what sounds like a bed-time story that starts, "Once upon a time there was a magical kingdom where they found a lot of magical black stuff under the ground" (3:13). The brief narrative supports a non-Western point of view, flashing an image of Roosevelt and Churchill seated nobly beside each other as the child tells us, "But two other kingdoms had the key to the magical black stuff, and … they wouldn't share" (3:24). By appropriating these journalistic shots to present an Iranian perspective in what Bourdain points out – minutes later in his own voiced-over reflection on the montage itself – is a "simplistic and incomplete way" (4:28), the segment does enough to disrupt Western culture's influence over the American viewer's automatic response to such images. While deliberately omitting any logical argument, the montage "undo[es] the signification of the myth" of Western virtue, separating the images from what many understand as their "natural" meaning (Barthes *Mythologies* 127). Such audio-visual juxtaposition achieves both political and artistic effects. First, the appropriation of news footage in cinema follows in the tradition of avant garde filmmakers such as Andrei Tarkovsky (Ulmer *Internet* 263) and Sergei Eisenstein (*Applied* 274), who both examine the impression of cultural artifacts on life. By presenting this footage in new ways, the same images can be used "'to produce alternative institutions, different "viewings," new hearings,'" and in doing so, they can "be used to mount a counterideological discourse"

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(298). Bourdain's series, which regularly offers alternative perspectives as he travels the globe, is also inevitably political. The newsreel/ fairy tale combination in the Iran episode seeks to incite a shift in his viewers' perspectives in this cinematic way, so that Bourdain can go on to perform and share his experiences throughout the rest of the show with fewer ideological barriers. As such, this shift in perspective likewise supports the posthumanist condition of the digital citizen, whose daily interactions with the "electrate institution of the internet … must mediate a global encounter among strangers in an atmosphere of compassion fatigue, indifference or misunderstanding, perhaps even post-traumatic stress disorder" (Ulmer *Internet* 155). Bourdain's global interactions, then, become both a physical and electronic demonstration of this very condition. At the same time, this newsreel montage continues the artistic work of image reason by reducing concepts to metaphors (*Applied* 281), linking clips together in an intentionally constructed, rather than representational, fashion in order to allow the spectator to fill in the gaps of meaning with his or her own associations. As such, this work not only defies the traditional dialectic and logocentric thought processes applied to metaphysics whereby each element of existence is assigned a clear verbal definition, but it also highlights the interactivity and creativity that takes place during the perception of any image. Ron Burnett reminds us that "[t]here is no pure moment of seeing somehow divorced from all of the memories and thoughts that circulate within the human mind. A web of complexity sustains images over time and through history" (56). By presenting images in the structure of metaphor, equating signifier to signifier, cinematic montage requires a more conscious awareness of this complex web. This is the beginning of conduction, described by Ulmer as "a means to put into a reliable practice a power found 'wild' in daily life" (Internet 114). This is the logic of art and entertainment.

Bourdain's use of techniques from avant garde cinema becomes enhanced when he then begins to add images of cooking and eating to his production. When he segues from the newsreel footage to the next segment with the amicable suggestion, "… forget about politics if you can, for a moment. How 'bout the food?" his focus turns from public ideology to physical experience. He shifts the conversation from Iran's government to its people and reduces the elements of his performance from the national to the private activities of culture and, in doing so, prioritizes them. The first of eight food sequences in this episode – lunch in a busy restaurant – begins with another montage of images: close-ups of the hands of professional cooks pressing ground lamb onto a metal skewer, brushing sauce across sizzling kebabs with the motion of a painter, tossing basmati rice as if in celebration – this last act presented in slow motion to emphasize the value of rice to the Iranian body. The care with which the food is prepared is then recognized through Bourdain's mindful contemplation of each flavor and texture as he eats it. This exchange exceeds language, exceeds cultural difference, and provides an opportunity for each participant to acknowledge the embodied intelligence of the other. According to Ulmer, this attention to personal sensation will reveal the intersubjective connections that make electrate rhetoric effective. The electrate apparatus – in this case, the digital tools used to create and disseminate the show – must be "attuned to this emotional or mood dimension of human intelligence, in the same way that literacy is attuned to and augments the calculative or analytical dimension" (68). Through the performance of hospitality – including both the provision and the appreciation of the meal – these strangers momentarily connect. This is a demonstration of the body-to-body communication necessary for conduction and a totally literal performance of the analogy between eating and understanding.

Another food scene later in the show demonstrates the powerful rhetoric, not just of hospitality, but of nourishment, an act that serves the most basic of physiological needs. In a Tehran bakery early in the morning, Bourdain, one of his local hosts, and a long line of citizens wait and watch with empty stomachs as flat squares of sangak bread turn golden inside a brick oven filled with hot stones. When their bread is ready, Bourdain and his host take a few loaves to an outdoor bench for breakfast, and they begin to discuss the Iran-Iraq war of the 1980s. The host breaks off a slab of the bread and passes it to Bourdain as he describes the fear and loss his people suffered during this time. The scene is interspliced with images of nearby buildings depicting murals of those who fought and died, as well as with shots of young men bustling past wearing designer jeans and carrying cell phones. The entire sequence could be seen as symbolic, reflecting the lines, "Take, eat… this do in remembrance of me" (Corinthians 11:24 KJV). In this way, Bourdain enacts a reverse mirror-image of Derrida's comparison of understanding to physical incorporation. As Derrida refers to the interpretation of the Bible, for example, as a form of "sublimated eating" ("Eating Well" par. 6-9), Bourdain presents the practice of actual eating as, perhaps, the optimal method of perception and comprehension. At the same time, because of the focus on cuisine throughout the show, the scene can just as easily be read as the consumption of bread for bread's sake: two individuals filling the physical void of morning hunger amidst others who have or have not yet eaten. The warm and chewy texture, the comfort of taking sustenance while recalling more difficult times, the corporeal sensation of nourishment—these are powerful enough conductors of emotion that symbolic readings are unnecessary.

The goal of composing in image reason is to reduce the message to a physical sensation, not a concept. Ulmer looks to the haiku as a model, suggesting that "[i]n haiku … things are not treated as substances but as events" (48). As such, the bread in this scene loses touch with its many literary and biblical interpretations – if it has no substance, it cannot allude to any transubstantiation – and instead, becomes simply a source of comfort, a warm breakfast for Bourdain and his companion.

Figure 9. Bourdain in Iran

Source: *Parts Unknown.* Still image. "Án Introduction to Iranian Cooking."

CNN.com Web. 7 Mar. 2016

As this sensation of nourishment extends to the show's viewers – perceived through disembodied consumption – it communicates that ineffable quality of being, which so often escapes language. In this moment, Bourdain demonstrates how such a sensation can be employed as a rhetorical move, independent of reason or statistics, to influence the attitude of his audience – specifically

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to ease American mistrust of Iranian citizens – by connecting to their bodies through the image of his own.

Discourse: Credibility in Flavor

As Bourdain performs the material conditions of existence, through the act of eating, in the presence of the inevitably abstract political ideologies of the various cultures he investigates, he prioritizes the nonverbal elements of rhetorical discourse. Of these, Aristotle mentions "gestures, tones, dress, and dramatic actions" (*Rhetoric* Book II, par. 39). These are features of the speaker and, therefore, fall under the mode of ethos. In addition to these examples, Ulmer stresses the importance of the speaker's (or writer's) ability to express the effects of physical sensation – such as the taste and texture of fresh bread in the morning – as a key aspect of effective digital composition. In his instructions for writing the mystory, he states that "each discourse level … must be documented with details that address the senses" (*Internet* 6). In addition, he encourages the use of *nuance,* which he describes as the "quality that singularizes and enriches common experiences in the hands of creative people" (90). For the best examples of this, Ulmer looks to the poets, actors, and musicians as the original experts in such expression adding, however, that "imaging is not just for artists and poets now, but for any person wishing to be electrate" (94). These comments suggest that the creative, multisensory style of communication enacted in entertainment, as opposed to the analytical style of academia, will emerge as the measure of credibility in the digital era. Further, food-related entertainment media, specifically – as it so often invokes the concrete details of both personal and cultural

experience – may become the very model for this expansion of Aristotle's ethos into the new public formations made available through digital tools.

Through ethos, as Aristotle explains, "Persuasion is achieved by the speaker's personal character when the speech is so spoken as to make us think him credible," and further, "[t]his kind of persuasion, like others, should be achieved by what the speaker says, not by what people think of his character before he begins to speak" (*Rhetoric* Book 1 par. 13). Aristotle is essentially uninterested in expressions of knowledge or experience that may be performed by bodies or shared through images. In electrate rhetoric, however, ethos and image are one in the same – language participates, but primarily in support of the image being conveyed – and those images that most proficiently reflect recognizable details of embodied experience, resulting in a conductive bond between participants, become the most persuasive.

Althusser uses the terms *interpellation* and *hailing* to name this bond formation. His example of calling "Hey, you there!" to a stranger who then turns in response demonstrates how this conductive process is, in fact, an acknowledgement of an already existing relationship between a subject and a "specific … ideological configuration" (par. 180), or discourse community. In other words, the stranger knows that turning to answer is the expected response in this particular situation. Since conduction is the means by which hailing takes place in the online network of anonymous posthuman individuals – through the digital documentation of one body's experience leading to the reproduction, or recall, of a similar experience in a viewing body – today's discourse communities shape and are shaped by sensory perception. Such a method may be described as a simulation, but Ron Burnett argues that this conductive process constitutes an

actual interaction between beings. He claims that "images are not reductions [of reality] … they are the very basis upon which the body and the eye can manage the experience of being in the world" (21). In this sense, the mediation of relationships between bodies through images not only hails users by calling attention to, and thereby influencing, their ongoing enactments of their own subjective realities, but it also establishes credibility in the speaker or writer who demonstrates authenticity by using images and sensory language to exhibit a deep and embodied knowledge of a particular discourse community.

James Paul Gee defines the functions of such groups as shaping social activities. "At the same, though," he says, "cultures, social groups, and institutions [themselves] get produced, reproduced, and transformed through human activities. There is no institution unless it is enacted and reenacted moment-by-moment" (1). This process of identity and situational reenactment is crucial to both the ethos of the individual members and the survival of the group. As such, the act of creating and eating particular food dishes and sharing images and descriptions of them is often a valuable means of performing this reenactment. Further, such specific embodied knowledge as the flavor of a dish, or the process of making it, is often a private and exclusive knowledge, which is therefore an effective tool for both perpetuating and, especially, resisting certain cultural ideologies. That this knowledge can be demonstrated through the types of performance and imaging native to the arts and entertainment only intensifies its value. In this way, digital food media productions expand the possibilities of Aristotle's ethos into the ever-growing web of enactment, sensory experience, presentation, and reenactment.

Because of the rhetorical power of this embodied performance, shared through television, films, documentaries, blogs, and websites, the institution of entertainment is growing increasingly more influential than the institution of school (in its traditional sense), which, as Althusser points out, "has the obligatory (and not least, free) audience of the totality of the children … eight hours a day for five or six days out of seven" (par. 106), while the state ideology is "drumm[ed] into them" (par. 104). Such conquest over the time and attention of the state's subjects makes reasonable Althusser's claim that education is the dominant ideological apparatus of capitalist society (par. 109). Even so, entertainment has begun to surpass school in the digital age not only because of its 24-hour availability, but even more so because of the embodied nature of its communication, which reveals a deeper kind of authenticity, and hence a more potent ethos, than the verbal exhibit of academic knowledge practiced by traditional instructors. Further, the institution of entertainment allows heterogeneity and contradicting values the widest space for release. In such a space, "the resistance of the exploited classes is able to find means and occasions to express itself" (par. 86). Because they provide opportunities for expression, entertainment productions, including food-related media can, in fact, be persuasive enough to become tools for ideological change.

 The rules of an institution, according to both Althusser and Foucault, don't carry meaning, but instead carry political power. This political power shifts when dominated groups are able to turn these rules against their oppressors. Foucault explains that "[t]he successes of history belong to those who are capable of seizing these rules, to replace those who had used them, to disguise themselves so as to pervert them, invert their meaning, and redirect them against those who had

initially imposed them" (Rabinow 85). Cultural rules as detailed and specific as what is and isn't

appropriate to eat can be used in exactly this way. Parasecoli provides a few seemingly benign

examples of this:

> Certain dishes and street foods that until a few years ago had low-class
>
> connotations are now recognized as part of cultural heritage under a changing
>
> social and political climate that nurtures different sensibilities. The same slice of
>
> ripe cheese that until a few years ago might have been considered with disdain in
>
> comparison to neatly packed, hygienically made, and ready-to-serve slices of
>
> industrially produced cheese is now perceived as an embodiment of culture,
>
> tradition, know-how, prestige, gourmet expertise, and even political resistance.
>
> (10)

In this description, the food objects themselves demonstrate ethos as they represent cultural

knowledge. As such, one's documented use of such objects, through images, writing, and

performance, grants a rhetorical capacity to the user that can, at times, be as crucial as the

difference between life and death. Indeed, some food-based relationships in history have proven

to be as equally violent as war. When access is denied and people starve, the effects on their

bodies are brutal, and they have little means or strength to fight back. In some instances,

however, deprived groups have indeed made use of "the rules" and use of food-based images and

discourses in order to both survive and overcome their situations.

It is well known that, in American slave communities, for example, access to food was scarce.

That which was grown in small personal gardens, along with the poorest scraps of meat leftover

from slave masters, became the staple diet for most. It was the culinary ingenuity of members of this community to take those scraps and turn them into meals that provided both sustenance and flavor. The dishes created during this time, a combination of West African food items, such as rice and okra, and American produce such as corn, turnips, and collard greens, along with discarded cuts of meat, are laden with history, controversy, symbolism, and values. This type of food has become, for many African Americans in history, a type of weapon that not only protects against their deprivation, but empowers them in the face of racism. Kelsey Bates explains that "ownership of these dishes – and some opportunities to grow, cook, and sell their own food – relieved slaves from a situation in which they were constrained in nearly every other aspect and presented them with occasions to exert a certain amount of independence from white hegemony" (54). Bates' analysis of interviews with descendants of a specific slave community in Gee's Bend, Alabama, show that "this food culture and food freedom thrived beyond slavery, past emancipation, and through reconstruction – into the late twentieth century – and continued to provide African Americans with comfort during uncomfortable times and with power against dominant white culture" (ibid). During the Civil Rights Movement, the linguistic discourse of African Americans brought about the application of a specific term for their southern cuisine: soul food. The term reflects the comforting nature of the sweet and savory dishes, as well as the cool, empowered, self-ascribed description of Black Americans in the 1960s and 70s. In terms of its presence in today's media, Southern Black cuisine, or soul food, is presented through a variety of embodied discursive performances, reflecting a broad spectrum of preservation within and influence on mainstream entertainment culture.

In terms of food-based television, one program called *Down Home with the Neelys* presents an

African American Southern couple who owns several barbecue restaurants in Tennessee. On

their show and its related website, the Neelys provide for viewers "secrets from their famous

restaurant dishes along with their tastiest family recipes." These consist of dishes based on the

soul food tradition, but vastly modified to use healthier and more varied ingredients. For

example their "most popular" chicken recipe is made with skinless thighs, crushed tomatoes, and

rosemary. Their green been dish is made with lemon and garlic as opposed to the more

traditional bacon. The text on the site does not address issues of history or identity, but rather

issues like: "Weeknight, Date Night!" "Midnight Munchies" and "Tailgate Zone!" Through its

language and, more effectively its flavors, this site makes clear that *Down Home with the Neelys*

intends to affiliate itself with a more mainstream audience which, in turn, creates greater

commercial appeal; to include through food rather than to subvert; and to connect to the present

rather than the past (Gee 12-43).

In contrast to the Neelys' website, owned by Food Network, two self-produced, and more

strategically discursive, blogs are *Divas Can* Cook and *Soul Food Connection.* In many ways,

these two sites present themselves as being more closely connected to the ongoing Conversation

regarding the history of soul food and race. The first blog presents meals made with mostly

traditional items, such as sweet potatoes, pumpkin, zucchini, and cornbread, but they are

balanced with unexpected dishes like potato latkes and Nutella desserts. Further, several recipes

on this site are named after the author Monique's grandmother, as in "Grandma Barb's

Homemade Yeast Rolls." In this way, *Divas Can* Cook connects itself directly to past

generations. Further, Monique enacts what Gee calls a "grammar two" discourse that closely

associates her with African Americans well versed in the southern traditions of cooking and

speaking. Gee explains that while "grammar one" is the grammar we learn in school, "grammar

two" consists of "the patterns in which we combine different grammatical elements so that the

overall combination creates a social language. Grammar two cannot be learned by rote or by

study, but only by practice and interaction with the group in which it is used" (29). An example

of this is the first sentence on *Divas Can Cook*'s welcome page, which reads, "[this] blog will

show you how to whip up some flavorful, slap-yo-mama (and get slapped right back) dishes all

from scratch!!"

Figure 10. Soul Food Collard Greens

Source: "Soul Food Collard Greens." *Divas Can Cook.* Web. 7 Mar. 2016

By enacting this specific social language, Monique not only confirms her affiliation with a specific culture of people, but she also utilizes discourse to display her authenticity and to demonstrate her authority as a cook. By speaking in a genuine, informal, southern manner, she forges credibility for her southern recipes. Even so, the dishes speak louder than the grammar. While *Divas Can Cook* certainly presents itself as more traditionally southern cyber community than the Neelys' site, its images and language offer little to reflect directly on political issues.

The second blog, *Soul Food Connection*, most directly addresses relations of power in today's society by providing both information and physical access to readers. One main purpose on this blog is to support soul food restaurants around the country by providing an online database "for people to search for and find soul food restaurants in their area."   The blog's author, Rene Couret, explains her concern for the displacement of black buying power, the need to support black businesses, and the need to "empower people." For Couret, an important step in this empowerment is the conduction of the bodily experience of consuming the edible artifacts of this historically exploited cultural community. In her online response to the documentary *Soul Food Junkies*, about the health consequences of eating traditional soul food, Couret both recognizes the language of addiction attached to the black community in the title of the film, and also argues that such media "persuades a population to have self-perpetuating stereotypes of anger and resentment toward a culture of important history and food that has brought a people together for over 1,700 years." Her reaction against this nutrition-oriented documentary is supported by a paper by Tony L. Whitehead, who addresses the findings of nutritional studies that "have linked the disproportionate prevalence of … health problems among African American to the food they

eat, particularly in the South, where the diseases are common and many African Americans continue to practice so-called risky foodways: eating foods high in fat, salt, sugar, and cholesterol" (94). Whitehead's argument against these nutritional findings is based on the idea that these eating habits have not been clearly identified as "the primary culprit," especially in light of the fact that the diet of white southerners consists of basically the same items" (95). Several discursive tactics are taking place here. First, nutritional "experts" are recommending that African Americans forfeit their traditional cuisine. Foucault might suggest that, as this cuisine has been a weapon of power for generations, this is an attempt to "disarm" soul food eaters as a cultural group. Both Foucault and Gee would address this as an example of the discourses of authority and of knowledge being used as weapons in the ongoing war of social power shifts. Further, Foucault would locate this conflict "at the point of intersection of the discipline of the body and the control of the population" (Rabinow 67). Nevertheless, Couret makes it clear that the use of scientific discourse is ineffective because she – and presumably other members of her cultural group – feels less threatened by the suggestion of health consequences than she does by the possibility of the withdrawal of her culture's traditional food. In this way, she reveals the social and ethical power of the food and its flavors.

All three of these sites demonstrate how conduction, or the sharing of sensory stimulation through the circulation of images and language, supports an embodied attachment to one's discourse community through the recall or reenactment of valuable taste experiences. The frequency of these attachments empowers the community. Therefore, when such taste

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experiences are threatened, making reenactment impossible, the identities of the community's members are themselves threatened.

Warren Belasco explains that several cultural groups throughout history have relied on such gustatory reenactments as a tactic to maintain a footing, and even a stronghold, in the balance of social power. He mentions "affluent descendants of slaves, famine survivors, war refugees, and impoverished immigrants [who] cherish the stigmatized foods of their oppressive past as a way to honor their ancestor's courage and endurance – for example, … the scrounged 'hedge nutrition' of Ireland… the unleavened bread of the Jewish Exodus, the boiled chicken feet of Chinese peasants" (30).

In what Belasco calls "perhaps the grimmest example of how food memories can empower people" (30), a group of Holocaust victims used embodied food memories as a weapon against the degradation and torture of the Nazis. In the Czech death camp Terezin several starving female prisoners began to talk secretly about recipes from their hometowns and their families. They began to forgo crusts of stale bread to trade for bits of pencil, writing down their recipes and sewing them into their clothes; "some [were written] on scraps of Nazi propaganda material" (Quinn). The collection was published in 1996 as *In Memory's Kitchen: A Legacy from the Women of Terezin*. This particular example demonstrates the power of food memorials that consist only of language. By recreating the dishes of their homes, just in writing, these prisoners found a small but effective means to resist the absolute annihilation of their identities because the authenticity of such virtual experiences can, even briefly, outweigh that of the actual. That this communal recall of taste sensations became so valuable that these women risked death in order

to participate supports the argument for taste and flavor as tools of rhetoric and empowerment. Further, the expression and recreation of sensory experiences from within a particular discourse community establishes an ethos that cannot likely be achieved through analytical language alone.

Mood: From Movies to Markets

Just as the digital still life performance enacts Ulmer's image reason, expanding the traditional mode of logos by adding the conduction of physical sensation to the longstanding analytical methods of induction and deduction; and, likewise, the demonstration of one's embodied knowledge of specific flavors through a variety of verbal and nonverbal discourses provides a unique and effective means of establishing ethos; so too does the invocation of the chemical senses extend and advance the method of pathos. Of pathos, Aristotle claims, "persuasion may come through the hearers, when the speech stirs their emotions. Our judgements when we are pleased and friendly are not the same as when we are pained and hostile. It is toward producing these effects … that present-day writers on rhetoric direct the whole of their efforts" (*Rhetoric* Book One par. 12). The production of these effects is similar to what Ulmer argues ought to be the purpose of today's digital rhetoric; however, Ulmer is more interested in evoking mood than emotions. While emotions are temporary and fleeting, mood endures as a physiological state which, in turn, can stimulate behavior and movement, much like the way funk music drives listeners to dance. When this mood becomes collective and is then directed toward a public policy issue, creative collaboration is inevitable. Ulmer offers the example of *wabi-sabi* as "the

cultural mood of Japan" (*Internet* 52). By this, he means that discourse communities, even on a

national level, can share a particular state of mind upheld through its atmosphere. *Wabi-sabi*, for

instance, refers to a sense of "impersonal loneliness or sadness experienced at a deeper level as

pleasure" (53). Such a condition, according to Ulmer, is maintained and dispersed by artists and

poets, like the haiku master Basho, whom Ulmer considers a mediator between cultural mood

and individual experience. Of today's artists, Ulmer suggests that filmmakers may be the most

effective in "using images to evoke a state of mind, an atmosphere" in order to convey this

connection between the personal and the collective (262). He quotes Tarkovsky, who explains,

"'I am recreating my world in those details which seem to me most fully and exactly to express

the elusive meaning of our existence'" (ibid). Such work extends pathos from the use of speech

to stir momentary emotions in its listeners to the vast potential of multisensory digital tools to

reopen the contents of our realities, making perceptible the origins of our worldviews, origins

which may go unnoticed or seem universal until they become exposed through art. This

exposure is powerfully rhetorical in that it is the process most necessary to achieve what Ulmer

calls a "'Copernican' revolution [whereby] our approach to problems involves a shift in point of

view" (308). Similarly, Wolfe's claim that "the nature of thought itself must change if it is to be

posthumanist" (xvi) supports the same goal. In effect, the mode of image reason is not only

intriguing in the ways that it can extends literate rhetorical techniques into the digital age; more

importantly, it supports the emergence of long repressed, embodied cognitive processes that may

be crucial to the type of mass collaboration made possible by new media communications.

The sensory stimulation achievable through cinematic composition, even in its earliest years, has

certainly included the provocation of smell and taste. The elaborate performance of Charlie

Chaplin as he boils and devours his boot in the 1925 film *The Gold Rush*, for example, inevitably

calls forth the sour smell of worn-out leather and invites viewers to imagine its musty flavor and

tough texture as Chaplin eagerly chews it up. While enacted as a joke, the scene reminds

viewers' bodies of those unpleasant eating experiences that are withstood through the

desperation of hunger. Thus, the mood created here captures the hardships of life in early

twentieth century America tempered with the tenacity to endure them with humor.

Figure 11: 11a. Charlie Chaplin Eats his Shoe; 11b. Il Timpano

Figure 11a Source: *The Gold Rush.* Still image. *Pinterest.* Web. 8 Mar. 2016
Figure 11b Source: *Big Night.* Still image. *Eater.com.* Web. 8 Mar. 2016

A much more appealing example of multisensory, image-induced mood is the depiction of the

feast served in Paradise, a 1950s Italian restaurant and the setting of the 1996 movie *Big Night,*

directed by Campbell Scott and Stanley Tucci, which begins with a close-up, panoramic sweep of the dining table as the meal's early courses, *la zuppa* and *il risotto,* are served to enraptured diners. This course is followed by the presentation of *il timpano,* a baked pasta dish, which the chef turns out of its pan with the attentiveness of a midwife and the other characters consume with an almost erotic pleasure. The following four-minute sequence of food-filled platters carried across the cinematic frame—roasted game hens, halved artichokes, baked whole salmon, sautéed olives, roasted garlic bulbs, beets, asparagus, a roast suckling piglet, bowls of fruit and nuts—is supported by an upbeat musical soundtrack as the characters indulge, licking sauce from their wrists, spilling wine, feeding one another, until the camera angle itself is swooning. Upon viewing this scene, one becomes caught in what Burnett refers to as *reverie:* "an activity of visualization that is similar to the [state] that music listeners drift into when they 'listen' to a song or a symphony" (40). This describes the intensity of mood to such a degree that it steers cognition from its logocentric habits and toward a physical and psychic apprehension of the moment when the virtual, constructed atmosphere – of the movie scene, in this case – becomes the actual atmosphere enveloping the electronic screen and its viewers. Burnett explains the value of reverie in viewing images as an intuitive space which requires, and therefore creates, a holistic, embodied sense of empathy:

> [T]he gap between seeing images and experiencing what has been seen is a very large one. Sight is transformed into subjectivity in much the same way that internal images are a platform for the imagination, little of which can be explicitly linked to the seemingly concrete specifics of vision. This is why reverie is such

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an important concept. The demands of viewing and thinking about the

experience, as well as making it meaningful, are so multilayered that a distinctly

human kind of openness is required in order to make the entire process work.

(53)

Burnett's explanation of reverie is almost identical to Ulmer's use of the term *chora*:

Chora names a mediating space that coordinates the inner void, nothing, openness

(Being) with the outer order of events (Becoming). Mystory is a genre that maps

one's natural standpoint, and directs this coordination, with the electrate apparatus

in its native nature being attuned to this emotional or mood dimension of human

intelligence, in the same way that literacy is attuned to and augments the

calculative or analytical dimension. (*Internet* 68)

In this way, both reverie and chora demonstrate that electronic imaging can—and should – be

used to evoke and exploit bodily mood in order to provide an opportunity for multiple users or

viewers to share in the same sensations, thus creating an understanding that facilitates working

together on important issues. Further, the direct stimulation of taste and smell sensations

accelerates this empathetic sharing through an asynchronous, but still communal, act of

disembodied consumption, which highlights the inevitably social nature of eating together,

whether the meal consists of a sumptuous banquet or an old shoe.

While such noteworthy food scenes have been a part of cinema since its inception, the personal

documentaries that include food and eating epitomize image reason even more fully in that they

demonstrate an indivisible blend of still life performance, community and family discourse, cultural mood, intuitive space, and individualized, multisensory experience. In the 1974 film *Italianamerican,* for example, Martin Scorsese interviews his parents about growing up in New York City as Sicilian immigrants. The 49-minute film begins with his mother, Catherine Scorsese – seated on her plastic-covered sofa – explaining how she learned to make her tomato sauce, which is the result of her mother's, mother-in-law's, and grandmother's influence. The introduction of food and flavor – and its connection to family – at the start of the interview establishes a sense of comfort and familiarity, which supports and extends the verbal explanation of this particular cultural experience. The second scene shows Catherine in her cramped, blue floral-wallpapered kitchen, rolling meatballs and preparing the meal over which the rest of the interview takes place. Then, seated at a small, round table draped in a beige tablecloth and strewn with pasta, meatballs, bread, salad, and wine, the Scorceses, with thick Brooklyn accents, discuss the vast number of siblings with whom they grew up, the vast number of jobs held by each of their fathers, and the great many difficulties that tested and solidified the marriages within their families. The presence of the meal throughout this conversation acts to illuminate the cultural mood of the Italian American experience since, as with many other cultures and nationalities, it is an essential piece of the multisensory context, or frame, in which this existence takes place.

Figure 12. Scorsese Family around the Table

Source: *Italianamerican.* Still image. "Catherine Scorsese." *Tumblr.com.* Web. 8 Mar. 2016

In households with any level of access to nourishment, throughout history and around the globe, food and flavor are often linked to verbal discourse. In *The Rustle of Language,* Barthes suggests that "the gastronomic collectivity is essentially worldly, and its ritual figure is conversation. The table is in a sense the geometric locus of all the subjects discussed; it is as if alimentary pleasure vivified them, brought them to a kind of rebirth" (267). Further, this combination of talking and eating is present in life from the start. In his discussion of family discourse, Ulmer mentions that orality is the first form of culture a child enters, thus "learning a native language along with an ethnicity, a gender, and many other features fundamental to one's identity" (25). This early phase also includes the perception of flavor as an inseparable element of environmental information. In orality, the child does not experience sound alone, apart from the holistic context of being. Rather, language accompanies a variety of embodied activities, such as learning, playing, and eating. Because of this, Scorsese foregrounds the importance of

food in his documentary by foregrounding the image of the meal in the cinematic frame, demonstrating that the taste and smell sensations which accompany early auditory exposure are just as crucial to establishing one's identity as language itself. In addition, while the names and anecdotes shared in this interview are specific to the Scorsese family, the sensation of sitting around just such a table, consuming the very same foods, and hearing the same vocal tonalities is one shared by a huge portion of Italian descendants living in the United States today. As such, the viewing experience takes place in a constructed atmosphere, a consensual sensory domain that includes the sounds of a specific grammar two discourse complemented by the taste and smell of garlic and tomatoes, extended through the prosthetic of film across audiences. Further, the mood of this atmosphere, while originating in a scene featuring an Italian-American family and their meal, can also exceed the categories of ethnicity and geography that originally contained it, as its effect, more so than its specific content, is transferrable to so many similar experiences among families of diverse nationalities. In this way, Scorsese's multisensory production – which combines language and images that reflect personal, seemingly trivial, details that, in fact, evoke volumes of meanings – represents the ideal mystory composition.

This rhetorical power of mood, particularly as it is evoked through the chemical senses, is even more recognizable as it carries over into advertising. As affiliates of the entertainment industry, advertisers are increasingly incorporating taste and smell references into their rhetorical images in order to create the same type of embodied connection with their viewers as artists, poets, and filmmakers have long been able to achieve. Aradhna Krishna, marketing professor and leader in sensory marketing research, claims that "[m]arketing that engages the consumers' senses …

affects their perception, judgement and behavior" ("Aradhna" par. 2). She suggests that by

providing particular stimuli, marketers can reconstruct those familiar sensory domains in which

consumers' values are formed, thereby establishing the respective mood and opening a channel

between the product and the consumer's subconscious (*Sensory* 94). For example, Krishna

proposes that ads in black and white are likely to make viewers feel calm and relaxed, not only

because "people see very little color under low light conditions," so that seeing shades of gray

reminds the brain of night and time for sleep – even possibly affecting the release of melatonin—

but also because of the cultural association with early cinema, particularly "the films noir made

in the early 1940s to the late 1950s," in which many scenes take place at night under the cover of

darkness (248). These cultural associations carry over into taste and smell images, as well.

Krishna's research in this area demonstrates that, while the physical effects of exposure to

chemical sense stimuli are similar, the particular signifiers that induce the effects are often

culturally distinct. For example, when a culturally diverse group of study participants were

asked what fragrances inspire a festive mood, a German participant answered with "'[s]ausage

and beer smells,' while a British male remembered 'Christmassy foods and the smells of candles

and a fireplace' … [while] many Americans… recalled Thanksgiving smells [such as] '... the

turkey in the oven.' In the Chinese group 'barbeque pork' … ranked high on smells associated

with celebrations, while Indian/ Pakistanis associated 'the smells of sweets and spices and

curry'" (116). Such a study supports Ulmer's claim that the default mood of a discourse

community is a combination of biology and culture (*Internet* 298). The value of this

combination is that the stimulation of the physical senses can be used to recreate cultural moods,

thereby utilizing our embodied cognition to access various "worldviews," which, according to

Ulmer often hold the key to many policy problems in the world today (ibid). In this way, the induction and examination of cultural moods can provide points in common among a diverse population of individuals while revealing changes in interpretation as different cultural groups react to the same mood-inducing signifiers.

In her article "Unframing Models of Public Distribution: From Rhetorical Situation to Rhetorical Ecologies," Jenny Edbauer agrees that mood and feelings constitute the influential power of messages, that rhetoric exists as a framework of "affective ecologies comprised of material experiences and public feelings" (5), in other words, biology and culture. In addition, she argues that the effectiveness of a message does not lie within the traditional elements of a rhetorical situation – such as the rhetor, the audience, and the exigence, or issue – but, rather, in the movement and dissemination of the message itself. Like Ulmer's model of conduction, Edbauer presents "An ecological, or *affective*, rhetorical model [which] is one that reads rhetoric both as a process of distributed emergence and as an ongoing circulation process" (13 emphasis in original). This model highlights how the movement of a message links various discourses together, shaping new publics and exigencies along the way. As an example, Edbauer analyzes the concatenation over time of the slogan "Keep Austin Weird." This slogan began as a bumper sticker distributed by two small businesses in protest of the encroachment of national chain stores and restaurants into their quaint downtown location. As this slogan began appearing on T-shirts, coffee mugs, and even billboards, its meaning and purpose transformed depending on the discursive communities through which it travelled. The local university changed the words to "Keep Austin Liberal Arts," while the public library morphed the phrase into "Keep Austin

Reading," all while maintaining the same font and design (17). Eventually, the slogan was co-opted by the major corporation Cingular (18) – the very type of corporation the slogan was designed to discourage – and also used as a counter-rhetoric by those who supported the changes in the city, who rewrote the line as "Make Austin Normal" (19). Edbauer offers this example to demonstrate how the rhetorical situation is more effectively understood as "a circulating ecology of effects, enactments, and events" (9), where the act of composition is ongoing and distributed. Equally important is the understanding that this act of composition is inseparable from the "social dimensions" of embodied mood and enacted discourse (13). As such, rhetorical ecologies create posthumanist publics by connecting participants, even across differing worldviews, in a dynamic flux of association and persuasion.

In terms of sensory marketing, the circulation of chemical sense messages in advertisements and products further facilitates the emergence of the posthumanist subject not only by reflecting and creating networks of meaning among various social discourses but, in addition, by distributing this meaning within the cognitive bodies of participants across the entire sensorium. A clear example of the concatenation and accretion of a chemical sense message, rather than a verbal message, in marketing is the now infamous phenomenon of *pumpkin spice*.

While various dishes are made with pumpkin meat, seeds, and oil around the world, many American consumers have an affective association with the flavor of pumpkin specifically as a reminder of the Thanksgiving and Christmas holidays. In terms of evoking a festive and nostalgic mood, the taste and smell of pumpkin pie, which contains cinnamon, nutmeg, clove, allspice, and ginger, recalls for many thoughts of celebration, home, and the reunion of the

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extended family. In both anticipation and memory of such events and the mood they evoke, innumerable companies offer pumpkin flavored – or scented – products, often for a limited time, at the turn of the autumn season. For example, the Spiced Pumpkin Candle sold by Yankee Candle since 1988, is described on their website as "A perennial customer favorite," signifying the yearly change of seasons and return of the holidays. The candle is also meant to evoke the taste of the pie itself: "this beloved fragrance perfectly captures the inviting scent of pumpkins baked in simmering spices … and sweetened with brown sugar. Irresistible!" ("Spiced Pumpkin"). Based on this early pumpkin-related product, the message to the chemical senses reflects a need to create feelings of warmth, comfort, and even gustatory pleasure in the home.

Around ten years later, the same mood became incorporated into the public coffee-drinking experience at several small coffee shops and, in 2004, at Starbucks, increasing their sales by eleven percent that year (McEwen par. 9). By creating and selling the Pumpkin Spice Latte by the millions over the last decade, Starbucks has shifted the exigence of the pumpkin flavor-message from the desire to increase the comfort of one's private surroundings to the exhibition of one's inclusion in popular trends. Indeed, Starbucks' marketing of its most popular drink includes its own hashtag on Twitter called @TheRealPSL where customers can post photos of themselves drinking the coffee. This conspicuous consumption, however, quickly led to the association of Pumpkin Spice Latte with an almost desperate trendiness.

Figure 13: 13a. Pumpkin Spice Latte Selfie; 13b. White Girl Meme

Figure13a Source: "Fyeahpumpkinspice." *Tumblr.com.* Web. 8 Mar. 2016
Figure13b Source: "Growing Up White." *iFunny.* 8 Mar. 2016

For example, Urban Dictionary defines the coffee as, "A drink from starbucks [*sic*] that many

white girls drink during the fall while dressed in boots (typically uggs), yoga pants (or leggings

of some sort), and a jacket" ("pumpkin spice latte"). In turn, this stereotypical Pumpkin Spice

Latte drinker is known on Urban Dictionary as a "basic bitch," meaning one engaged in "typical,

unoriginal behaviors, modes of dress, speech, and likes" or "an extra regular female" ("Basic

Bitch"). This appropriation of the pumpkin flavor-message by a satirical website then

contributes to longstanding conversations regarding gender, class, and race. Further, while this

derogatory association of pumpkin flavor appears as a rhetorical constraint in the sense that it

questions the source of the latte's popularity, the association of the "basic bitch" image has been

reappropriated ironically by white females in such tweets as "Common white girl #PSL" and "I

need a #PSL and someone to tell me I'm pretty" (Mims). Already, the movement of pumpkin

spice flavor, as a mood-inducing message, traces shifting attitudes expressed through its use,

multiplying its possible meanings.

Stemming from such contradictory interpretations of this particular flavor, Zak Cheney-Rice

examines a series of events that link pumpkin-related imagery to the bodies that react to it. In his

article, "White People and Pumpkins: A History," Cheney-Rice begins by contrasting the news

media's presentation of the riots in Ferguson, Missouri to those that took place during the annual

Pumpkin Fest in Keene, New Hampshire, where "[p]olice deployed tear gas and 'pepper balls' to

corral up to 2,000 [white] people, some of whom lobbed rocks, debris, beer cans and bottles of

liquor at each other … [where] multiple car windshields were broken … lampposts were

uprooted, at least one vehicle was flipped over, 26 people were hospitalized and 84 more were

arrested" (par. 2). Cheney-Rice points out that several news organizations presented the

Ferguson rioters as a threat and applied the actions of those involved to the African American

population as a whole, implying that black people in general have some innate tendency toward

aggression and destruction. Meanwhile, for the same behaviors, reporters distinguished the

Keene rioters from the rest of American whites and portrayed their behavior as that of rowdy

revelers who were merely "'acting out'" (par. 21), dismissing the long history of violent white

mobs in this country. Cheney-Rice suggests that the presence of the pumpkins in this situation

did much to soften the image of the rioters, as pumpkins, particularly in the Northeast, so

powerfully symbolize "bounty, values, and agrarian simplicity" (par. 14), thereby associating the white New Englanders with their pious Puritan ancestors. The article goes on to include examples of offenses against both Native Americans and African American slaves in past centuries through literary, artistic, and cartoon references to pumpkins, which, in the South at that time, symbolized poverty and backwardness (par. 15). Cheney-Rice quotes American Studies professor Cindy Ott, who explains that such associations are "'part of why blacks didn't embrace pumpkin pie in the same way. Black Thanksgiving traditions tend to involve sweet potato pie more'" (par. 16). These differences in meaning associated with the taste and smell of pumpkin and pumpkin spice, then, expose the blind spots in the different worldviews across various American discourse communities, thereby creating a new space in which they can be examined. By illuminating these differences, Cheney-Rice contributes to a rhetorical ecology sustained by shifting cultural moods inspired through the chemical senses.

In this sense, the circulation of pumpkin flavor and pumpkin references in the social field have legitimated its influence in the same way that Cingular's cooptation of the "Keep Austin Weird" slogan both changes and perpetuates the original message. Each of the changes to the initially lighthearted mood associated with pumpkin spice creates new openings that allow exigencies, significations, and affective responses to multiply. As Edbauer explains, "These various rhetorics overlap through a kind of *shared contagion*" (18 emphasis in original).

Currently, the contagion of pumpkin flavor and fragrance in the marketplace has grown to pandemic proportions as producers of both edible and inedible items seek to exploit the mood-enhancing power of the gourd. Present pumpkin spice products include air freshener, lip balm,

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nail polish, soap, M&M's, kale chips, vodka, yogurt, ice cream, and even dog food (Perry). This massive expansion of pumpkin awareness, of course, leads to jokes about the invention of pumpkin spice condoms, maxi pads, "Old Pumpkin Spice" deodorant (Lewis), and the destruction of society by PSF, Pumpkin Spice Fatigue, so that "in the future … people will talk about [current times] the same way people in the 1400s talked about the Black Death" (Davies par. 2). At the same time, such public reinforcement of a smell or taste shows that the chemical senses are indeed rhetorical and can be used to both subvert and supplement verbal messages by recognizing the body's role in cultural discourse. While each reincarnation of the flavor-message contorts the original mood sought by early participants, this trend reinforces both the viral model of information exchange and the multisensory paradigm of embodied cognition. Edbauer acknowledges that "the force of 'messages,' as they accrete over time, determine the shape of public rhetorics" (20). Further, the force of messages exchanged via the chemical senses and then distributed virally through digital media demonstrate that rhetorical ecologies consist of more than just words. The power of evoking a shared mood, even as it becomes "expanded," "adopt[ed]," and "transform[ed] … to fit other purposes" (18), forges a path whereby participants can learn and make new information through the creative act of sensory perception.

Image reason, then, is the use of digital tools to stimulate this sensory perception based on techniques found in art, poetry, film, and even social media. As the rhetorical power of these techniques increases through the mass emergence of composers and writers making up the fifth estate, the industry of entertainment becomes the institutional apparatus of the digital age,

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providing a space for the expression of experiences that cannot be captured in words and, hence, can no longer be accommodated by traditional academic processes. Moreover, Aristotle's seminal rhetorical modes of logos, ethos, and pathos can now be expanded to support electrate logic through the incorporation of imagery, performance, cultural discourse, and mood as they extend across new media connections, stimulating and influencing participating citizens at every point of articulation.

CONCLUSION AND RECOMMENDATIONS

WHAT A TANGLED WEB WE WEAVE: HOW CONTENT AREAS, SUCH AS FOOD STUDIES, FILM STUDIES, AND COMPOSITION CAN BE SYNTHESIZED IN ORDER TO ACTIVATE EMBODIED THINKING AND WRITING

Ulmer's quest to develop effective rhetorical methods for the digital age is set in the college composition classroom (*Internet Invention* xii). His proposed project, the mystory, combines self-reflection, sensory imaging, and discourse awareness. As a work of invention, or *heuretics,* the mystory requires students to approach a problem in their field of study through the application of their embodied learning experiences gained in interactions with family, community, and entertainment media. Each student presents these experiences by creating a website that blends words with images. This digital collage is expected to reveal a signature problem-solving style or skill, which can then be applied to the chosen problem (42).

In this way, the mystory serves a greater purpose than mere online writing practice or even rhetorical innovation. The mystory guides students in an empathetic mode of thinking by bridging personal memory and emotion to problems in the world so that students can, literally, see (or sense) parts of themselves in global issues, thereby highlighting these issues' specific effects and their urgency. The value of urgency in the digital era is that it anchors the attention of distracted citizens caught in a vortex of innumerable images and information. Urgency compels citizens to feel empathy in a society of the spectacle by illuminating the connection

between their internal state and the external environment. Further, by elevating personal experience to a level of academic relevance and using it as a tool to improve the experiences of others, the mystory acknowledges the influence of the fifth estate, recognizing that those who blog, post, and comment participate in a vast network of knowledge and power. Such a project, then, becomes a model for educational practices in the age of electracy.

Beyond incorporating digital tools in the classroom, today's educators must promote this collaborative and empathetic mood. Education advisor Sir Ken Robinson explains that, "What happens in all times of conflict and cruelty is we shut empathy off so that we can do things that are unimaginable, and the way we avoid that is by kindling our imaginations and making those things unimaginable in turn" ("Imagination and Empathy" 1:41). He adds, "Part of the task of education is to connect ourselves with ourselves, but the other great task is to connect us with each other through the power of empathy" (3:18). Empathy and mutuality, Robinson argues, "get lost in an industrialized, homogenized, atomized system of education" (3:29). Here, he is describing the education system, which is founded on the values of literacy and humanism and, therefore, designed to "split apart [the] dimensions of thought … manipulating the object of thought in science, and the state of mind in art. The outcome has been a hypertrophy of the object of knowledge and atrophy of state of mind" (Ulmer *Internet Invention* 58). With the current shift into the digital age, the changes in education necessary to ensure its effectiveness must include the fostering of both self-knowledge and compassion. The mystory accomplishes and exceeds these tasks by using the physical stimulation provided by punctum both to awaken awareness of the self and then to apply that awareness as empathy. The stimulation of the

punctum happens when the student performs, or reenacts, an emotional scene incited by viewing images. This performance is an action of the body driven by emotions – even if the action take place internally. In this way, the student does not simply imagine or explain the emotional effect of the image; she actually lives it. In other words, the interaction with the digital image becomes a physical and concrete experience, independent of language. When such experiences are shared across the conductive circuitry of the internet, users not only generate empathy, they also practice the embodied enaction of digital information while reinforcing the social, cultural, and material connections that make them posthuman.

While this project is designed for use in a classroom, similar conductive scenes, circulating physical and emotional effects throughout the internet, have emerged among the masses of everyday computer users, whereby personal blogs and posts include details that spark sensations of recognition and affinity in the bodies of those who view them. Often, participants use images of food to incite this punctum and empathy because of food's ability to engage all five senses – even through disembodied consumption, whereby the food is not physically present, but the reaction in the gustatory cortex still takes place – thereby activating both embodied and distributed cognition. As the number of food posts continues to grow online, users will increasingly interpret their worlds through a more balanced ratio of their bodily senses, and taste and smell will be used as commonly as sight and sound to convey memory and mood and, in turn, empathy. Indeed, the growing importance of the chemical senses to composing for a global audience is evidenced not just in online food media, but also in food-based television shows, movies, and documentaries that continue to be created.

Further evidence for the relevance of learning to think and write through the chemical senses is found in the growing number of university programs in food studies. These programs are quite new, with the first two in the U. S. founded at NYU and Boston University in the 1990s (Cosgrove par. 5). Since then, the number of degree-granting food studies programs around the country has multiplied, with 22 American universities currently listed on the ASFS (Association for the Study of Food and Society) website and several more now established in Europe and Canada ("Food Studies Programs"). As educational innovations, the general design of these programs shares several similarities with Ulmer's model for the electrate classroom. First, food studies topics are systems-oriented, using food, and the concrete taste and smell experiences that it incites, as the hub to interconnect and make meaningful a diversity of issues in agriculture, nutrition, regional culture, legislation, history, writing, photography, anthropology and more ("Food Studies"). Like the mystory demonstrates, some physical stimulus is necessary in the digital age in order break the surface of the spectacle and recognize the urgency of problems in the world. In this case, the stimulation of punctum occurs through the chemical senses and inspires empathy when conducted across the web of stakeholder involved in various issues. In addition, this interdisciplinary network of food-related fields supports Ulmer's argument that the current distinction between educational content areas is a social construction born out of an era of categorization and classification and growing increasingly ineffective for teaching (*Internet Invention* 4). Because food studies programs share several similarities with Ulmer's model, and since these programs already incorporate direct instruction in writing, photography, and media studies, it is not absurd to consider how university writing instructors might exploit the sensory

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power of food – as personal experience, social issue, artistic subject, historical focus – within their own composition classrooms.

Finally, while the field of entertainment is gathering social power and may likely surpass the traditional academic setting as the source for ideological reinforcement, the two institutions still have the opportunity to share their influence and avert some of those infamous conflicts that arose out of the original transition from church to school: Ulmer reminds us, for example, of "the fate of Socrates" (31). Currently, the system of education in America and most other developed countries stands in opposition to the values of entertainment. In fact, according to Robinson, traditional schools actively seek to extinguish creativity in students. He states, "As children grow up, we start to educate them progressively from the waist up. And we focus on their heads. And slightly to one side" ("Do Schools Kill Creativity?" (9:13). In other words, the concept of school, having been formed in the era of literacy and humanism, is to encourage abstract, analytical thought and, in turn, to discourage embodied experience. It is this experience, the holistic stimulation of the entire body, that Robinson argues allows for creativity. He adds, "There isn't an education system on the planet that teaches dance every day to children the way we teach them mathematics… Why not? …. We all have bodies, don't we?" (8:27). What Robinson is proposing is an immersive classroom environment capable of stimulating a student through every sensory perception. In addition, the students themselves ought to be producers of immersive environments and use that process of creating to learn about any number of subjects as they work.

Andrei Aleinikov refers to such a process as *creative pedagogy*, and explains the methodology:

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> [T]he pedagogical influence is provided on the background of centrifugal, above-the-criticism, mutual activity in which the learner is raised from the object of [pedagogical] influence to the rank of a creative person, while the traditional (basic) study material is transformed from the subject to learn into the means of achieving some creative goal, and the extra study material includes the description and demonstration of the heuristic methods and techniques. (Mazzola 161)

This method helps to transition educational concepts out of humanism and into posthumanism, whereby subject and object categories are done away with and making takes the place of analysis and assessment.

Creative pedagogy in the digital age will undoubtedly utilize the tools of electracy. Because of this, the curricula of film studies programs also become helpful models for activating embodied cognition through invention. UC Davis, for example, connects the diverse disciplines of history, gender studies, class studies, cinematography, and narrative traditions through the process of both experiencing and creating multisensory images. Like the mystory, students in films studies programs are "call[ed] upon to tell their own stories" (Agbodjan par. 4), and, in turn, "inspire anyone who watches [their work]" (par. 1). And while the use of digital tools extends the distribution of student knowledge and experience, the physical reactions in those who make and witness the virtual images act as anchors to situate posthuman participants in a world equally technological and natural. In other words, the biological side of the cyborg is not to be diminished but supported by digital imaging. As Ulmer states, "Writing continues as a human operation and … the goal of education in a man-machine symbiosis is to explore the specific and

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irreducibly human resources of intellection needed to direct our technological-scientific ecology"
(*Applied* 95). These human resources include the capacity for empathy, and the association of
sensory stimulus with emotion. This statement is offered in support of Derrida's proposal to
incorporate smell and taste into imaging projects, thereby "articulating in one presentation both
verbal and nonverbal materials – the kind of Writing needed for classroom performance and for
audio-visual presentation in film and video … written within the enframing of a sensorium
reorganized to reflect the contact qualities of the chemical senses" (98). Here is where embodied
knowledge, separate from thinking through language, is included in the creative process. Here is
where film studies and composition must look to food studies.

By combining various elements from these three content areas, educators in the digital age can
motivate students holistically, activating their bodies from the inside, through the suggestion of
tastes and smells, and also extending them beyond physical boundaries through the use of new
media. Students can write "what it feels like to be your body" (*Internet Invention* 317) by
creating images of food, even food that they have grown or prepared themselves before
recording it, or food they are about to eat, or food made by a family member. While such
products are already common among typical computer users, students of digital composition
might use these as raw materials and shape them into elements of collage, montage, digital
stories, games, art installations, and more. The value that images of food bring to the creative
classroom is that they carry associations of larger food-related issues and important political
conversations. They also retain traces of family and tradition and are, therefore, valuable tools in
resisting threats of global homogenization of diverse cultures.

Finally, the value of incorporating food and chemical sense experience into classrooms is that food, simply as edible material, regardless of all other significations it carries, is not properly acknowledged as the crucial element it is, and this must change. In "Taking Food Seriously," Michael Pollan writes, "During the last 50 years we've been living in a kind of fool's food paradise, marked by astounding bounty and apparent choice" (par. 7). In recent years, however, investigative media have revealed that many of the products found in supermarkets arise out of situations of animal abuse, toxic chemical spraying, scientific experimentation and slave-like farming conditions. Further, the American industrial food supply is so centralized that "a single act or accident of contamination could sicken or kill … hundreds of thousands of Americans at a time" (par. 8). Furthermore, nutrition and public health scholar Yen Li Chu has determined that providing basic food knowledge in the classroom increases public health, and that, "Food education and cooking classes [for students of any age] have a positive impact on … eating habits, [the] recognition of healthier foods, and [the] desire to eat them" (38). The type of education described here is one that supports embodied cognition through establishing taste sensations that can be recalled later. Further the particular tastes studied will influence students to make healthier eating choices. The connection is that simple: if food is addressed in classrooms, the well-being of society in general will increase.

Far from trivial, this upturn in chemical sense activity reflects distinct shifts in all areas of society, including the ways in which we use food to forge and maintain relationships with other beings and with our surroundings; the communication tools we use to access environmental information; and the power of this information to teach and move us. By incorporating actual

and virtual taste and smell experiences into the messages that we create we can, indeed, change how we think collectively which, in turn, will change our world.

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