Contesting India’s Image on the World Stage: Audience Reception of Slumdog Millionaire

Ashley Anderson

Driven in part by developments in communication technologies, globalization in its utopian vision promises to link diverse cultures across geographic boundaries. Marshall McLuhan exemplifies this ideological promise of globalization in his description of the global village. He describes it as a world in which people would be brought closer together as they made their voices heard. According to McLuhan, “We have become irrevocably involved with, and responsible for, each other” (Croteau and Hoynes 337). Recently, global media scholars have questioned this idealistic vision of an egalitarian, mutually interdependent democracy. The flow of information and materials in a global economy seems to be privileging an elite few while marginalizing others, causing a rift in the values of a divided population. Using the representation of India as an example, this study examines the cultural effects of globalization in a postcolonial free market whose media outlets have been infiltrated by transnational capitalism.

Until economic reforms in the late ‘80s and early ‘90s, India’s economy operated under a socialist model. Their rapid state-sponsored reform inaugurated “the creation of a robust global capitalist consumer economy” (Parameswaran and Cardoza 1). Such rapid economic changes in turn impacted the cultural scene in India. Both the Indian people and foreigners were given the opportunity to redefine what constitutes the Indian image. The critically-acclaimed 2008 film Slumdog Millionaire provides an interesting example of an attempt to define or redefine the Indian identity and is used as a central text for this study. Through a focus group discussion, audience reactions to the film were analyzed to reveal controversial debates over the images and interpretations that
the film conveys.

With ten Oscar nominations, *Slumdog Millionaire* attained global popularity. The film was directed by Briton Danny Boyle, yet features an all-Indian cast and is set in Mumbai. It tells the story of a young boy born and raised in the severe poverty of the slums who comes to win the game show “Who Wants to be a Millionaire?” Each question he answers flashes back to a particular, and usually tragic, instance in his childhood. His hardships alongside his brother and his quest to find his one true love drive the plotline. The main characters are constantly surrounded by the hardships, greed, and violence of Mumbai.

This study focuses on audience debates concerning the validity of the film’s representation of both postcolonial India and the Western world. As context, actual socio-economic conditions in India are examined in comparison with the film’s portrayal to reveal differences in the shaping and determination of India’s cultural identity. The influence of transnational corporations and their consumer culture are analyzed within the content and production process of the film. Through critically examining audience reactions and themes within the film, this study uncovers changing cultural attitudes instigated by globalization.

India’s rapid economic reform spurred changes that are evident in current Indian media and culture. The middle class is much larger and wealthier than before; the average purchasing power has skyrocketed; there is access to a brand new market of goods and technologies that were previously unavailable; and, as a result, the Indian government has paid off a good portion of debt. The nation has become a prominent figure on the global map both politically and economically. Since India’s economic deregulation, transnational corporations have jumped at the opportunity to reach a foreign market and have vigorously promoted a capitalistic consumer culture. Corporations have created a new brand consciousness among Indians promoting an elitist culture characterized by a consumer-driven materialism. With the deregulation of Indian broadcasting, corporate giants have placed advertisements in all facets of Indian media, influencing the values and desires of a growing middle class. While part of the Indian population buys into this new elitist culture, many oppose it or simply cannot afford it. Indians who either cannot relate or cannot afford to incorporate elitist consumer culture into their identity stand apart. *Slumdog Millionaire* depicts both facets of Indian culture, showing both a new elitist identity and the resistance to it.

Scenes in *Slumdog Millionaire* reveal a shift towards brand-consciousness characterized by elitist culture. Director Danny Boyle used scenes in his film featuring Western products from Coca-cola and Mercedes-Benz without prior consent. The two transnational corporate giants requested to be pulled from scenes that featured their brands amongst third world squalor (Brodesser-Akner 14). However, both companies run advertisements in the slums of Mumbai and have set up foreign branches within India (Brodesser-Akner 14). In the case of the film, Mercedes requested to be pulled only from scenes that showed their cars amongst the poverty of the slums. Scenes that showed their vehicles in affluent areas of Mumbai were allowed (Brodesser-Akner 14). The companies’ requests show that they consciously cater to an elitist Indian culture and how those who cannot afford their brands are marginalized. While Coke and Mercedes were quick to pull their brands from the movie, they continue to pursue India’s market creating an elitist brand-conscious culture that attempts to define the Indian image. The scenes in the film along with the conflict surrounding them are indicative of a changing economic scene that has caused a rift in a common Indian identity.

Economic reforms have given rise to a large middle class of consumers. The materialist desires of this class are shaped by corporations through traditional capitalistic advertising techniques (such as branding) that have infiltrated Indian media outlets. The middle class’s desire for consumer products is reflected in current television media content. According to Indian television network Business India Television, or BiTV, the middle and upper classes crave new imported programming. According to Robbin D Crabtree and Sheena Malhotra, “globalization has become one of the driving key words of the Indian middle class” (370). The content that appears in current Indian media attempt to define the Indian identity based on the globalized desires and new purchasing power of the middle class.

In addition to changing images in Indian broadcast media, economic liberalization instigated changes in the Bollywood film industry as well. Bollywood films became internationalized, thus boosting ticket prices. As a result, the film industry has begun to cater to an elitist audience, changing the images that typically appear in their films (Rao 62).
Bollywood has followed the brand logic of transnational capitalism, catering only to those who can afford to participate (Rao 64). In “The Globalization of Bollywood: An Ethnography of Non-Elite Audiences in India,” Shakuntala Rao argues that non-elite Indian audiences feel increasingly distanced from the themes and images depicted in Bollywood films. Non-elite audiences characterized Bollywood films as a dream world filled with lavish homes and cars (Rao 68). New themes and images reflect the growing elitist culture that globalization and transnational companies have instigated. While Slumdog Millionaire shows lavish homes and cars characteristic of the elitist image of India, the film also gives a full perspective of Mumbai by showing the rest of the population who are excluded from it.

In addition to excluding a large population, the consumer culture present in Indian media content often conflicts with traditional values. As Indian culture becomes more materialistic, traditional values of modesty are being left behind, especially in the area of commercialized standards of female beauty. In 1996, India hosted its first global media event, The Miss World Pageant. Indian communication company Amitabh Bachchan Corporation, Ltd. (ABCL) hosted the pageant and, along with much of the public, saw it as an economic milestone for Indian entertainment. The global media event sparked an all-time high for advertising revenue slots, instigated growth of India’s multinational cosmetics industry, and promoted India as a desirable place to visit or invest in for foreigners (Parameswaran 61). ABCL sought to use the pageant to make India a global player by broadcasting India’s potential as a culturally rich nation ready to wholly modernize its economy. By advertising the wealthy urban sections of India (and excluding the slums and poor rural areas), ABCL attempted to broadcast an elite image of India to the world. In addition, the concept of the pageant itself served as a vehicle for promoting Western ideals and standards of beauty. Since the pageant is a Western invention, Eastern women are held to Western standards of beauty. Speaking English is an unwritten qualifier. Many protests arose, saying that the pageants promoted cultural and economic imperialism, sexism, Western standards of beauty, immorality, and inappropriate modes of consumption for a Third World country in poverty (Parameswaran 78). The pageant attempted to represent India as a desirable free market open to Western-based corporations.

Changes in cultural standards of beauty have in turn created a spike in the cosmetics industry. Since the middle class adheres to the elitist images present in their media culture, corporations have created products to fulfill their desires. The rapid rise in consumer culture has greatly benefited the cosmetics industry in India, using aggressive capitalistic marketing techniques to make products popular among consumers. After India’s economic liberation, it was ranked the third largest import market and experienced a 25 percent increase in its cosmetic sales in just four years (Parameswaran and Cardoza 1). This sudden increase can be attributed in part to an emerging desire for skin-lightening products. Through capitalist advertising techniques, cosmetics companies have taught audiences to associate lighter skin with an elitist image. Melanin inhibiting products have swept the cosmetics market by promising to lighten the complexion of dark-skinned Indian women (Parameswaran and Cardoza 1). From magazines to televisions to films, the vast majority of female models in India are fair-skinned. In the film Slumdog Millionaire, Freida Pinto, the lead actress, who is described in the film to be “the most beautiful woman in the world,” is unusually fair-skinned (Slumdog Millionaire). In India’s changing capitalistic culture, light skin has become a widespread symbol of glamour and class mobility. This symbolism marginalizes dark-skinned women and further marks a clear shift towards Western-influenced elitist values.

Method
This study is designed to investigate the following research questions:
• What does the popularity of the film Slumdog Millionaire, and the ensuing controversies it stirred, reveal about the tensions in defining the Indian image?
• What does the popularity of the film among Western audiences reveal about global media flows?
• What do the varying reactions to the film among Indian audiences reveal about global media flows?
• What evidence of a developing consumer culture is present in the film and how does it relate to the actual economic situation in India?
• How do American audiences interpret/identify Western influences in the Indian film?
• How does the film and audience reactions to it highlight tensions of economic disparities?
To probe these central questions, this study adopts a two-pronged approach to collect and analyze audience reception of the film *Slumdog Millionaire*. Through a combination of online viewer response groups and a focus group screening, this study hopes to gain insight into how Indian and Western audiences perceive the film, its portrayal of India, and the impact of globalization.

Institutional Review Board (IRB) approval was attained in April of 2010. After IRB approval, self-created fan groups on Facebook were analyzed to collect conflicting opinions on the controversies surrounding the popular film. The group is entitled “*Slumdog Millionaire* (Official Fan Club)” and contains 6,468 members both nationally and internationally. Facebook focus groups are a form of computer-mediated communication and fall under the Bulletin Board Systems (BBS) category. According to Lindlof & Taylor, users of BBS connect online to discuss special interest topics by reading and responding to messages posted by others, which are archived and displayed in a “threaded format” (252). By collecting user-generated data from a popular global network such as Facebook, this study is able to analyze perspectives from both American and international informants who post their opinions and reactions publicly.

This study selected a Computer-Mediated Communication (CMC) research approach towards qualitative research. CMC refers to any communication that occurs between two or more computers that are connected through a common network (Lindlof and Taylor 253). The advantages of this methodology include “expanded access to hard to reach populations and sites, reduced time and cost, the convenience of automatically generated transcription, and the preformatting of data analysis” (Lindlof and Taylor 254). In addition, the “anonymity and reduced cues associated with many CMC systems encourage users to experiment with the expression of elements of their identity,” producing more expressive or opinionated data that may not be obtained from participants in a focus group setting (Lindlof and Taylor 257).

The film was also screened for a focus group of local voluntary participants. Rao’s research indicates how audience reception studies illuminate the tensions concerning globalization and media representations (72). The focus group method was selected in order to elicit responses that may not arise on an individual basis. According to Lindlof & Taylor, members of a focus group “are stimulated by the ideas and experiences expressed by each other …in a kind of chaining or cascading effect” (182). Focus group participants were recruited via e-mail and class announcements within the College of Charleston Department of Communication. Foreign culture, political, and other liberal arts clubs on campus were contacted and recruited for participants. In addition, a few communications professors offered students extra credit for participating in a body of communications research, which served as an incentive for students to volunteer. A total of 15 participants attended the screening, 14 of whom were students and the final participant was a student spouse. The married couple, the only participants who were of Indian descent, contributed a more nuanced perspective on the film.

After the 121-minute film was screened, responses were collected via a focus group discussion, which was recorded and then transcribed. Participants received a guideline of discussion questions prior to the film screening to encourage them to watch the film critically and be better prepared to discuss their opinions afterwards.

Participants were asked several questions using a guided interview protocol, which is included in the Appendix. Participants were asked to assess the representation of India and the city of Mumbai, the potential impact of a Western director (Danny Boyle), the potential of the film to offend, influences of globalized consumer culture in the film, and whether the film deserved its many awards.

In addition to the guided questionnaire, consent forms were administered before the screening to inform each participant of the voluntary nature of the study. The consent forms also informed participants that their identities would be protected to create a more comfortable and free-flowing discussion.

Data collection and analysis of audience-generated accounts were guided by the Grounded Theory Approach, which stresses theoretical discovery over theory testing (Lindlof and Taylor 218). In this approach, processes and products of research are shaped as data is collected where “new experiences continue to alter the scope and terms of [the researchers’] analytic framework” (Lindlof and Taylor 218). With the combination of BBS groups, audience-generated responses, and integration of past research, this study gathers a broad depth of
Results

Although the guided questionnaire (Appendix) was not strictly followed, it helped to foster an interesting and free-flowing discussion. One participant’s idea spurred another’s, resulting in a 35-minute dialogue that covered the premise of all ten questions. Participants’ responses worked in conjunction with the Facebook fan group responses to reveal a rich dialogue about the film. The Facebook fan group responses will be grouped with the focus group responses and analyzed in the same manner in order to add more opinionated and diverse reactions that the anonymity of Computer-Mediated Communications data provides.

Some viewers found Danny Boyle’s portrayal of India to be blatantly offensive or, at least, saw the potential for it to be offensive to Indians. They attribute this offensiveness to several different factors. The first was the one-sided portrayal of India as a place of third world squalor. Many viewers went on to attribute the film’s success in America to this stereotypical display of what some critics have called “poverty porn.” Viewers were able to understand how a sweeping third world generalization characterized by the sensationalism of severe poverty could be offensive to an Indian viewer. For example, one user from Hong Kong described the consequences that the film’s negative stereotyping has on Indian viewers:

The Western world might be perplexed at the Indian sentiments over Slumdog, but then perhaps they haven’t got a clue about what it feels like when every film that is based about your country is always stereotypical and degrading. How strange that the world isn’t interested in examining India’s phenomenal rise to power, the ascent of the middle classes or the tech industry. This movie just reinforces the same old stereotypes about India to an international audience who doesn’t know much better. It is offensive to any self respecting Indian. (Facebook user in Hong Kong)

A Facebook fan from Bangladesh expressed concerns about what kinds of messages are communicated about India to “First World viewers”:

the political project of this movie is nothing but to create a totally new version of “terror,” which is the “third world poverty,” as a means of attracting the “first world viewers”…my teacher told me last week that she watched this movie in a Canadian theatre with some “first world viewers.” She said, “I would have enjoyed this movie more if I had watched it alone. All viewers around me kept saying “oh my god!” “unbelievable,” “how is it possible?” “pity upon them,” “is this India?” etc. which ruined my total enjoyment.” (Facebook user in Bangladesh)

These same concerns about the movie’s representation of poverty were echoed by participants, largely constituting an American audience, in the focus group discussion that followed the screening of the film:

I've never been to India but I remember the first time I watched it I was shocked. I knew the slums were bad but it put it to a whole other level. It really puts you there and you're like, wow, is it really like that? (Focus group participant # 2)

Some focus group participants were truly shocked and took the explicit images of poverty at face value, while others questioned the accuracy and motives behind the depictions:

It's this poor India movie. It's really powerful but it's a little bit condescending because it's all negative. There wasn't even a single positive portrayal of a wealthy person. All the wealthy people that you see were gangsters…or Americans. (Focus group participant # 4)

I feel like it got so much attention because of that shock factor. . . And Americans never see that, even though that is in America. On TV, it's all pretty, it's all clean, most of the time. We watch what we want to watch that's happy and funny…like Gossip Girl. (Focus group participant # 10)

In addition to a negative stereotypical portrayal, many viewers thought the Western directing of the film was also offensive to Indians.
Their knowledge of India’s colonial history with Britain contributed to this second factor:

It’s hard to trust an outsider…it adds insult to injury. Especially in this case with the imperialistic history of an English person making a film about India and how crappy it is after English imperialism. That could have a bite to it that he didn’t intend…I can see how it would rub people the wrong way because of the imperialism… (Focus group participant # 1)

Especially with the imperialism, I think…. There’s a common conception in India that the West exploits them and it could be based in history and all of that. It’s changing now, though, and unfortunately people don’t realize that. When this movie comes out it could be taken the wrong way with some of that history. (Focus group participant # 3)

I think it would be accepted differently if it was not directed by Westerner because Britain had control of India for so long... I don’t know how that’s influenced him [Boyle] personally. But given the history, what he’s learned in school has probably developed his viewpoint differently than a Bollywood director. But I felt like he portrayed so many negative sides of it and zero positive sides. Child prostitution, trafficking, crime, poverty, overpopulation, gangs, violence, it all focuses on that negative which the slums have but there’s obviously good things too. (Focus group participant # 8)

While the aforementioned viewers found India’s portrayal offensive or empathized with those that did, others took a different perspective. Some viewers recognized that while the depiction of India in Slumdog Millionaire was negative and somewhat one-sided, it was in their view “accurate” to a certain degree. They credited Boyle with accurately portraying one portion of India, but not the country in its entirety. They did not find this limited scope portrayal to be offensive but understood how it could be misinterpreted as a full picture of India for certain misinformed viewers. While some applauded Boyle for depicting slum life accurately, others wished he had painted a broader picture of Indian life:

I know there’s caste systems, but we didn’t really see it, we only saw the lowest caste of people. I don’t think the criminals were of an upper class. It shows us what we may think of slums stereotypically but it wasn’t a broad enough picture of the whole caste system. (Focus group participant # 1)

The participants from India in the focus group applauded Boyle’s accurate portrayal of the slums, yet emphasized that his portrayal depicted only one section of India, not the entire country:

I’m from India. I moved here about seven years ago. I don’t think India is completely portrayed in the film. A section of India is portrayed accurately, which is the slums. I grew up watching Indian movies and I haven’t seen an Indian filmmaker portray it as accurately as Danny Boyle has done. I have to give him credit for that. The point I disagree with is that it’s not how all of India is today. Mumbai is just one city. There’s diversity across the state, there’s castes…so I don’t think it’s portrayed well as a whole, but a section of Mumbai, yes…I find it funny because when we saw the movie a couple people asked us, were you offended? I actually was not offended. Again, I’m a big movie buff; I admire any movie that portrays real life. This is the way of life for a lot of people in India. I don’t feel ashamed of it that someone is showing this to the world because if you go to India you will see it everywhere. I’m disappointed it is like this but I’m not offended by the movie at all. Most friends of mine from India were offended, just because they’re a little defensive. It’s a cultural thing. (Focus group participant # 3)

Another participant identified Boyle’s portrayal as limited, but accurate. They felt as though the misinterpretation was in the eyes of the misinformed viewer, not in the film’s directing:

[Boyle] wasn’t trying to show all of India, just one part of it, but unfortunately for a lot of Americans that’s the only movie we’ve seen about India and that’s what they think all of it is like...some people don’t care enough to find out more so they just think that is India. (Focus group participant # 11)
Some viewers went on to defend Boyle’s limited portrayal saying that many films about America depict it poorly and have the potential to offend Americans. They took an equal opportunity denigrator standpoint, which recognizes offensive stereotyping from both parties. One viewer even identified an offensive Western stereotype within the film itself:

I thought it was interesting, the one American couple that they showed...that in itself was offensive. They just threw money at this little boy. Oh, we’ll make it better just give him a hundred dollars. I think they even said show him the American way. Don’t take the time or effort but throw money at it and it’ll be ok. (Focus group participant # 4)

I think that the reason why [the film] did so poorly in India is because many people in India are too busy taking offense at the movie to appreciate it. All this BS that the movie is degrading, racist, etc. has seeped into the minds of many people who refuse to see the movie for what it really is. If you’re going to take offense at the fact that this movie portrays the dark side of Mumbai, then you need to take a minute to consider the amount of movies that have come out of Hollywood that depict the bad and worse of America. (Facebook user in Toronto, Canada)

When Americans are portrayed in a certain light, Paris Hilton is the figurehead of America. I take offense to that. “You guys are all fat and dumb.” It’s the same thing. At the same time anyone with a head on their shoulders would watch that and say this obviously isn’t the entire population. It’s a problem, people do live like that and I think it’s good to be aware, but to think that everyone in India lives that way is not realistic. (Focus group participant # 4)

Some viewers found Boyle’s portrayal of India to be accurate and applauded him for exposing the reality of the situation. They feel as though those who are offended by the film refuse to accept the harsh reality that so many Indians live in. Truthful exposure of inequalities seems to take precedence over preservation of Indian national pride for these viewers:

Aside from evaluating India’s portrayal, viewers were able to identify elements within the scenes of the film that pointed to new social and economic changes taking place in Mumbai. This identification shows that viewers perceive the changes that India is going through and the multiple identities that make up its culture. Focus group participant # 6 appreciated the film’s depiction of a rapidly changing Mumbai:

I really noticed the heavy industrialization going on, especially in the second half of the film. In the beginning there was none of that so that was a pretty obvious development. (Focus group participant # 6)

Others, especially Facebook users, found the story line to be unrealistic, especially its happy ending. They identified the unrealistic elements of the story to be typically Western and ignorant of the actual social realities in India. They found the entire storyline to be sensationalized or tweaked to satisfy Western ideals. Facebook participants seemed particularly enraged by the idea of social mobility being portrayed as a viable option in a culture with an ancient caste system:

SDM [Slumdog Millionaire] is an exaggerated story made for the Western palate. Cannot believe Danny Boyle pulled it off with so many awards, must be a genius. (Facebook user network unknown)
Social justice in India, for people of a certain caste and certain statue is almost a joke. This is not to say that there is no justice but there is a wider gap for people who face inequality and lack of resources available for these people. But the fact is that the film's entire narration seems like a germination of a terribly sadistic and complex mind with the sole aim of satisfying the Western idea of India. (Facebook user in Atlanta, Georgia)

That, to me, is *Slumdog Millionaire* contrived, pretentious, absurd, hollow, inauthentic, a pseudo-statement about social justice. And yet today the film stands on the precipice of Hollywood's highest honour, the Academy Award for Best Picture. (Facebook user in India)

The two-pronged methodology of a focus group discussion and Facebook fan group data provided an array of responses about the film and its implications. While the focus group gave insight into the average American college student's take on the film, the Facebook responses gave stronger opinions from different cultural perspectives regarding the film. Overall, responses gave a variety of standpoints regarding the film and its portrayal of the Indian identity.

**Discussion**

The debates over *Slumdog Millionaire* illustrate conflicts about the Indian image and identity under changing social, economic, and cultural conditions. The qualitative data collected from respondents show that the film effectively communicates these changes. The film's interpretation of India has nonetheless generated controversy.

The consumerist economy that has infiltrated India since its economic reform is attempting to redefine its cultural identity as a modern capitalist nation. Part of the Indian population advocates and benefits from capitalism and celebrates the shifting image of India. Those excluded from the benefits of consumer culture no doubt feel differently. Through the film *Slumdog Millionaire*, audiences are able to see this emerging economic disparity and better understand the debate over a collective Indian identity.

The data collected in the results reveals that some viewers either took offense or empathized with those that took offense to the film's portrayal of India. Their responses illustrate an awareness of a changing environment in urban India and how certain viewers perceive the film differently according to their cultural standpoint. They identified the depiction of India as stereotypical and attribute much of the film's success to the sensationalism of the poverty in the slums. Such viewers recognize and denounce the negative image that the West has consistently painted of India. Responses show that certain audiences would rather associate Indian identity with its political-economic success and the ascent of the consumerist middle class, not with the squalor that has traditionally plagued the slums.

In concordance with this viewpoint, participants discussed the effects and implications of having a British man direct the film. Some indicated that having a Westerner depict India in a negative or stereotypical fashion was especially aggravating. In recognizing such tension, audiences take part in the struggle over who gets to define the Indian image. Their discontent with a classically Western portrayal of the country reveals that Indians, both at home and abroad, desire the power to self-define. After years of being defined by the standards of imperialist Britain, many Indians want to redefine their country's image on their own terms.

On the other end of the spectrum, some viewers supported *Slumdog Millionaire* 's portrayal of India. Their responses reveal that they associate the poverty of slum life with India's cultural identity and think this sector of India should continue to be exposed. While those on this side of the debate may support the emergence of a globalized consumer culture in India, they want its successes to be placed in context with its downfalls. They defend the film's depiction of the middle and upper class sections of Mumbai juxtaposed against the widespread poverty of the slums. Those who support this depiction want to define India's cultural image in a more comprehensive manner in which all facets of society may be seen. This side of the debate rejects an identity defined by the dominant economic system and is fearful of the homogenization of a common consumerist identity that is sweeping the middle class. Instead of defining India by its recent economic success, this side of the debate desires a diverse national identity that encompasses both dominant and marginalized groups.

Those who support a consumer-based identity for India reject the
film’s emphasis on the slum, fearing that audiences may not recognize India’s developments and that the film may reinforce a stereotypical image of third-world squalor. However, given the results of this study, this fear has been disproved. In their responses, Western viewers have made it clear that they understand that the film only offers an accurate portrayal of one section of the country. Not one participant identified the entire Indian peninsula with the poverty of the slums. Furthermore, participants went on to empathize with Indians who may have taken offense to the film’s portrayal of India and understood their fear of misrepresentation.

However, the focus group was made up of participants with a college level education or higher. This may have provided them with a background education on India, perhaps reducing the influence of inaccurate stereotypes. This is a possible limitation of the study that calls for future research. To broaden the scope of this study for future research, members of the focus group could have been selected strategically in order to get a diverse array of viewers of different ages and from different social, cultural, ethnic, and geographical areas. Perhaps then a more diverse set of perspectives about India would arise, eliciting responses that would broaden the debate about the representation of India in the film.

Based on this study, it seems that the film does not endanger a more complicated understanding of India’s socio-economic diversity. In fact, Slumdog Millionaire may actually enhance this understanding to some extent. The film calls attention to the process of socio-economic transformations occurring in Mumbai since India’s economic reform. It displays the disparities in wealth and inequalities in power that are characteristic effects of such rapid development. While some want India’s image to be strictly determined by its recent socio-economic success, others want the portrait of the nation to include sectors of the economy that have not benefitted. Although some may argue that the dominant culture should define a nation’s identity, the accurate history of a country cannot be written without a diversity of individual accounts.

**Appendix**

Do you find the way India is portrayed in the film to be accurate to the best of your knowledge? If no, why? If yes, what other sources help shape your knowledge of the country?

After seeing the film, how would you describe the city of Mumbai?

The director, Danny Boyle, has directed films such as Trainspotting, The Beach, and 28 Days Later. Do you think that having a British director changes the way India is portrayed? Knowing this, does the origin of the director have any effect on perspectives or opinions on the film?

If you were a citizen of India or of Indian descent, would this film offend you? Why or why not? Do any films about America or your particular city/state offend you?

Do you think that the film serves an educational or secondary purpose?

Can you spot influences of globalization/consumer culture in the film? How is it represented? Negatively? Positively? How does product placement from companies such as Coca-cola and Mercedes-Benz affect you as a viewer?

Why do you think this film was so highly acclaimed? Was it deserving of so many awards? The film was far more popular in America than in India. Why do you think that is?

Do you find the storyline to be realistic? Why or why not?

What do you think is the social, political, or cultural message of the film?

Can you identify any stereotypes? Do you find them to be accurate in the film or do you see them as unjust?

**Works Cited**


Lindlof, Thomas and Bryan Taylor. Qualitative Communication Research
“Thank You God for Making Me Cute!”
Negotiating Bodies, Power, and Religious Meaning in Christian Evangelical Fashion and Beauty Ministries for Teenage Girls

Micah Carpenter

Inside a plush, newly-remodeled venue still smelling of fresh paint and Lysol, eight hundred well-coiffed women and girls cheer enthusiastically, yelling “Work it, girl!” and periodically jumping out of their seats with excitement. A modern dance troupe adorned with multicolored arm bands and fringed scrunchies dazzles audience members with a routine set to Daft Punk’s “Harder, Better, Faster, Stronger.” Teenage girls strut down the runway, swishing their skirts and flipping their hair with great panache, as colored lights move to the beat of Madonna’s “Vogue.” Parents beam. Cameras flash. Shari Braendel strides onstage and invokes Jesus.

This performance, while potentially baffling to the uninitiated, is commonplace in Braendel’s ministries for teen girls. Braendel travels to conservative evangelical churches and private schools around the country to deliver the gospel through her “Modest is Hottest Fashion Show and Real Beauty Workshop” and her “What TO Wear: Fashion and Beauty Tips for Christian Girls” speaking events. She’s one of a growing number of entrepreneurial women who adopt mainstream iconography and focus on issues of “worldly” beauty and fashion in an effort to capture the spiritual attention of teenage girls. Included in her midst are women like Mayra Gomez, founder of the Model4Jesus fashion show ministry, which entreats hopeful teen models to foreground the
“image and character of Jesus Christ and His calling on their lives” (Model4Jesus); Tammy Bennett, founder of Makeover Ministries, which encourages gals to look good from the inside out and be super(role) models for Christ (Makeover Ministries); and Ginger Garrett, author of Christian beauty books for teen girls and their mothers, including Beauty Secrets of the Bible: The Ancient Arts of Beauty and Fragrance and Queen Esther’s Secrets of Womanhood: A Biblical Rite of Passage for Your Daughter.

Each of these projects reflects a paradoxical melding of sensationalistic, mainstream media motifs and conservative Christian ideology, thus locating these evangelical fashion and beauty ministries firmly within what philosopher Susan Bordo calls the “postmodern kaleidoscope” of contemporary Western culture. According to Bordo, this cultural landscape is characterized by its “inclination toward the unstable, fluid, fragmented, indeterminate, ironic, and heterogenous, for that which resists definition, closure, and fixity” (38). I approach this project with an appreciation for the recurring paradoxes and ironies of evangelical fashion; my central goal is to articulate the myriad ways in which evangelical girls negotiate both the evangelical subculture and the larger cultural sphere, selectively yielding to and resisting a multitude of conflicting messages as they construct their identities. I intend to focus specifically on the presence of two well-worn Western cultural tropes within these domains – female submission and corporality – and investigate the ways in which these constructs are transmitted through the evangelical fashion and beauty industry and Western culture at large to teen girls across the country. I intend, also, to consider the ways in which contemporary evangelical fashion and beauty ministries might provide girls with a framework for resistance and may, in fact, transgress gender norms in their own right. Ultimately, I hope to reveal girls’ remarkable resilience and creativity in this cultural context, where, I argue, they must not only navigate misogynistic historical doctrines but must also work through the commodification of their bodies and spiritualities.

While this is certainly not the first study of Protestant evangelism or girls’ lives and experiences in the contemporary United States, it is, to the best of my knowledge, the first to investigate the lives and experiences of Protestant evangelical girls per se. The paucity of research on this topic is somewhat surprising, given the applicability of gender-specific ministries and the girls that attend them to the fields of feminist, religious, and cultural studies. The foundation for such an investigation has been laid, however, by feminist scholars in the fields of girls’ studies and religious studies. Research by scholars like Angela McRobbie, Anita Harris, and Mary Celeste Kearney in the emergent discipline of girls’ studies challenges the privileging of boys in youth and cultural studies, demonstrating instead a “consistent commitment to researching girlhood and girls’ culture as unique social formations” (Kearney 1). Girls’ studies scholars often speak to the ways girls negotiate postmodern “kaleidoscope culture,” as well, adopting an empathic lens with a focus on girls’ creativity and autonomy.

In the field of religious studies, feminist ethnographers like Julie Ingersoll, Christel Manning, and R. Marie Griffith have conducted similarly empathic and nuanced research into the lives of women in the conservative evangelical tradition. Griffith, in particular, has interrogated evangelical women’s struggles with power, submission, and embodiment through admirable ethnographic and historical research. Her studies delve into the subtleties of evangelical women’s lives, contributing to what Griffith calls a “central feminist goal: a heightened understanding of ‘other’ – read ‘nonfeminist’ – women, who challenge particular assumptions and contradictions within feminist thought and thereby help both to expand and to refine feminism’s possibilities” (God’s Daughters 12). It is at the intersection of these two innovative fields – girls’ studies and feminist religious studies – that I position my own work.

In this paper, I hope to investigate evangelical girls’ lives and their experiences with power and embodiment. Such an analysis implies a scrupulous investigation of primary sources, including articles from evangelical Christian magazines for teenage girls and personal interviews with Braendel and Garrett, two of the entrepreneurial evangelical women referenced above. Information from these sources will, in turn, be grounded in the experiences shared by the three fifteen-year-old evangelical girls I spoke with: Caroline Bain, an enthusiastic attendant of beauty and fashion ministries; Josephine Wright, member of the evangelical Young Life ministry; and Leanne MacIntyre, who generally approaches church with apathy but nevertheless attends evangelical ministries with her friends.
The Legacy of Female Subjugation in the Christian West

In an effort to contextualize, analyze, and problematize the ministries at hand, this study will first critique the rhetoric of the “twin sins” of the female sex within the context of evangelical fashion and beauty productions and Western culture at large. These two “sins” are, first, women’s alleged tendency towards insubordination and, second, their purported (and presumed impure) corporeality. Here, I argue that patriarchal concerns with female insubordination and sexuality/embodiment coordinate directly with the Christian tradition’s emphasis on female submission and “modesty.”

It should come as no surprise that these concerns have a long legacy in the West, dating back to the emergence of the Judeo-Christian tradition. In the book of Genesis, particularly chapters two and three, Eve, the prototypical woman, is painted as radically insubordinate (a sin that leaves her and all subsequent women charged with the fall of humanity) and exceedingly carnal. The story of Genesis remains central to the cosmological understanding of many in the contemporary West and as such continues to inform the Western construction of gendered hierarchies; indeed, according to the late feminist theologian Mary Daly, “The foundation upon which the case for the subordination of woman is built lies in the older of the two accounts of creation” (Daly 77). The creation account to which Daly refers here is the J document account, found in Genesis 2 of the Hebrew Bible. This version posits that the prototypical woman, Eve, was created out of and named by the prototypical man, Adam, in order that he might have a helpmeet. This account stands in direct contrast to the later (P document) account, found in Genesis 1, which describes God’s creation of woman and man as simultaneous and therefore egalitarian. Remarkably (or perhaps not?), it is the earlier and more problematic J document that most informs the Judeo-Christian tradition and its ideology concerning women. Thus, according to Daly, “In Genesis the [Church] Fathers found an ‘explanation’ of woman’s inferiority which served as a guarantee of divine approval for perpetuating the situation which made her inferior” (86).

The identification of women with sex, temptation, and the body rose out of Genesis as well. Chapter three narrates the story of the fall, wherein Eve and Adam eat the forbidden fruit of the tree of knowledge. This tale is often interpreted as evidence of women’s obsession with the sexual temptation of man away from his God-given purity. “In the mentality of the Fathers, explains Daly, “woman and sexuality were identified. Their horror of sex was also a horror of woman” (88).

Of course, the legacy of this biblical apologetic for the patriarchal oppression of the female sex did not end with the patristic tradition. The rhetoric and practice of women’s submission remains prominent in contemporary Christianity, especially in conservative evangelical communities, which often understand biblical passages prescribing gendered subjugation and/or difference to be the true, inerrant word of God. This, in turn, has resulted in the historical Christian emphasis upon women’s “twin sins” of insubordination and corporeality. Other feminist scholars have followed Daly in the analysis of the “twin sins,” seeking to show how this construct still informs the lives of women and girls today. Griffith, for example, picks up on this in her Born Again Bodies, in which she notes that evangelical girls may struggle more with their bodies than their non-religious peers. “The pressure to be thin and beautiful,” Griffith suggests, may be even greater for teens in the devotional world for the same reasons it is so considerable among their older female counterparts: the duty to serve as a glowing witness to Christ’s transformative power. Straddling the norms of “secular” youth culture and the intense bodily disciplines of American Protestantism, Christian teens are crushingly preoccupied with bodily control as with the many symbolizations of embodiment that aid them in signaling spiritual intensity and authenticity.

The fashion and beauty ministries I investigated certainly reflect this complication: in both denying worldly interests (including the pursuit of mainstream beauty ideals) and reflecting trends and values of the mainstream media industries, these ministries simultaneously complicate and propagate the damaging and commodifying effects of corporate media upon teen girls. Researchers interested in evangelical girls’ stories must therefore grapple with the complicated interplay of evangelical fashion and beauty productions and the larger corporate/cultural promotion of femininity. This necessarily requires an investigation of
the ways in which the contemporary United States – both secular and religious – can be understood as a commodity-driven, media-based culture.

Over the past several decades, girls’ and cultural studies scholars have produced theoretical approaches that aid in this investigation. Girls’ studies scholar Anita Harris, for example, claims that market-based forces of fragmentation and decollectivization characterize late modernity, thus making consumption a primary means through which youth express their individuality and craft their respective identities in our postmodern kaleidoscope culture (Harris 1). This sort of cultural fragmentation, in turn, lends itself to the emergence of what cultural studies scholar Douglas Kellner calls a “media culture,” wherein images, sounds, and spectacles help produce the fabric of everyday life, dominating leisure time, shaping political views and social behavior, and providing the materials out of which people forge their very identities. Radio, television, film, and other products of the culture industries provide the models of what it means to be male or female, successful or a failure, powerful or powerless. Media culture also provides the materials out of which many people construct their sense of class, of ethnicity and race, of nationality, of sexuality, of “us” and “them.” (8)

Kellner’s analysis is useful as we begin to consider the influence of mainstream media upon evangelical fashion and beauty ministries and the girls who participate in them. As we’ll see, the hegemonic standards of beauty defined by the corporate mass media and informed by historical Christianity figure heavily in these ministries, thus contributing to girls’ processes of identity construction in a real way. Moreover, the merging of these realms has myriad implications for evangelical culture, not the least of which is the potential for simultaneous commodification of girls’ bodies and religious traditions. This is clear, for example, in Braendel’s intention to make the (modest) display of female bodies the main spectacle of her events, an impulse that is also characteristic of the mainstream fashion and beauty industry. The joining of religion with consumerism is evident, as well, especially in Garrett’s *Queen Esther’s Secrets of Womanhood*, which entreats mothers to commune religiously with their daughters over pedicures and shopping trips. Finally, the price of Braendel’s and Garrett’s productions and their involvement in the evangelical marketplace marks them as distinctively consumeristic.

These commodifying impulses pervade contemporary evangelical culture, which today employs a diverse array of media motifs in an effort to spread the “good word.” The breadth and popularity of the evangelical marketplace can be interpreted as “profane” on some level, but its ubiquity also reflects the result of conservative Christian efforts to combat what many see as the “secularizing efforts” of mainstream media. In her study of media use among conservative evangelicals, scholar Heather Hendershot notes that evangelical consumers often “use Christian media not as tools of salvation but as safeguards against secular contamination” (8). The embrace of media tools is, moreover, nothing new; according to Hendershot, evangelicals “have historically embraced – although often not without debate – any ‘modern’ means that could be used to spread the Gospel” (4).

In addition, the Christian embrace of materiality is not limited to the post-WWII evangelical sphere. The Christian employment of material accoutrements, including clothing and beauty products, has a long and rich history in Western religion that should not be ignored by contemporary scholars. In her study of material culture in the Christian West, scholar Colleen McDannell explains, “the assumption that true Christian sentiments can be, must be, set apart from the profane cannot be upheld when we look at how people use material culture in their religious lives...If we immediately assume that whenever money is exchanged religion is debased, then we will miss the subtle ways that people create and maintain spiritual ideals through the exchange of goods and the construction of spaces” (6).

With this in mind, the importance of materiality to contemporary evangelical fashion and beauty ministries cannot be understated. I’ll attempt to weave a discussion of the influence of mainstream media and commodification throughout this article. Let’s begin by looking at the first of women’s “twin sins”: insubordination.

**Female Subordination in the Evangelical Tradition**

In her introduction to *God’s Daughters: Evangelical Women and the Power of Submission*, Griffith reminds readers that gender relations in the evangelical tradition are far too complicated to be delineated simply in terms of “male ‘patriarchy’ and female ‘oppression’”; According
to Griffith, “the realities are far more muddled...women have always carved out spaces for themselves within the social, historical, cultural, and religious structures that constrain them and have resisted those structures in subtle and unexpected ways” (God’s Daughters 14) Women’s and girls’ creative subversion of the gendered limitations and norms upheld by their faith communities was certainly evident in the ministries I investigated. Moreover, my studies make clear that the female leaders of these ministries are not only concerned with protecting girls’ “purity” and guarding them from the ills of secular culture, but they also have a genuine interest in promoting girls’ self-esteem and well-being.

In fact, the evangelical women I spoke with feel passionately about helping girls negotiate the potentially harmful messages transmitted through mainstream media and teenage peer groups. Braendel and Garrett both stressed the need for grown women of faith to mentor contemporary girls throughout this difficult process. Garrett, especially, spoke to the importance of gender-specific spaces and communities for girls’ (and women’s) empowerment and well-being.

These concepts and their delivery might be understood as a shift away from traditional evangelical belief and practice, which has historically emphasized men’s voices and experiences, promoted normative gender roles, and – perhaps most significantly for this study – only rarely been delivered by a female speaker to a large, exclusively female audience, as is the case with Braendel’s ministry in particular. It is indeed a significant point that these paradoxical messages of submission and resistance are being disseminated to Christian girls largely through the works of the evangelical woman entrepreneurs I interviewed and others like them. The rising prominence and popularity of ministries such as these might be interpreted as a challenge to conservative Christianity’s androcentric, male-dominated legacy.

Before I begin to make conjectures to that end, however, I must note: Female speakers’ adherence to traditional notions of femininity and patriarchal oppression should not be understated; in fact, they figure prominently in Braendel’s and Garrett’s work and were evident in each of my interviews with teenage girls. Braendel’s and Garrett’s messages, for example, were often paradoxical: both spoke to the import of female self-sacrifice and submission just as they called for girls to resist constructions of hegemonic femininity by practicing self respect. Moreover, their emphasis upon women’s role as spiritual mentors to young children has roots in historical Christian conceptualizations of womanhood. According to McDannell, Christian women since the 19th century have been considered the premier purveyors of spiritual truth to younger generations, especially in the domestic sphere:

The cult of True Womanhood promoted the association between domesticity and Christianity to the extent that mothers were considered to hold the key to the salvation of their children...Ministers, writers, artists, and reformers [in the 19th century] created a parallel between the Madonna nursing the divine child Jesus and the human mother feeding her child the words of salvation. (80)

For conservative Christians, of course, the salvific power of the feminine never moved beyond the borders of the domesticity. Moreover, women’s spiritual guidance remains unwelcome to men, who are still presumed to possess greater spiritual truths by virtue of their gender.

These biases have become more formalized since the emergence of the cult of True Womanhood in the 1800s. For example, the Southern Baptist Convention – currently the largest evangelical Protestant denomination in the United States – has since 1980 foregrounded women’s subjugation to men in its official resolutions, claiming that patriarchal order is biblically mandated (Association of Religion Data Archives). Not surprisingly, both Braendel and Garrett attend megachurches heavily influenced by Southern Baptist doctrine and use Southern Baptist publishers and media outlets to distribute their messages. The patriarchal bent of the Southern Baptist Convention and the Christian tradition more generally is therefore reflected in their work.

The most egregious example of the influence of Christian patriarchy on their work lies in Braendel’s inclusion of a videotaped interview with four teenage boys in her “Modest is Hottest” fashion show ministry. In this video, the four boys discuss in detail what they consider to be the most desirable manner of dress, amount of makeup, behavior, and belief system for girls. Braendel credits this video with distinguishing her event from other youth ministries and with truly selling the importance of modesty to the teenage girls in her audience. During our interview, she explained,
I make these videos because I want the girls to see what Christian guys really think about the way they dress... And you know what? I could probably show that video and go home! The conference could be over; I have done my job. Because all of a sudden girls hear [about modesty] not from a youth director, not from their pastor, not even from their speaker, but from guys their own age, who are really cute, who these girls think they’re getting dressed up for and going to the mall. And [the girls] are going, ‘Oh my goodness. These guys see me completely different than the way I wanted to represent myself.’ It has been very, very powerful at the events.

The featured “Christian guys” are all white and presumably middle-to upper-middle-class, and each is adorned in a monochromatic polo shirt, sporting the requisite tan of a certifiable Caucasian hottie. In neutral accents and without affect, each of these “really cute” boys re-describe the conservative evangelical consensus on proper womanhood, thereby prescribing traditional standards of behavior and appearance to the girls across the United States through Braendel’s speaking events.

In keeping with Braendel’s theme, the speakers heavily emphasize the appeal of female modesty. According to one of the interviewees, “When you see a girl who’s dressed modest, you’re kind of drawn to that person...It’s definitely a lot better” (qtd. in Braendel, “What Guys Really Think”). This contention that modesty is “better” and more attractive pressures girls into self-policing their behavior and appearance to attract “cute” Christian boys such as these. Moreover, Braendel’s video stresses heteronormative relational patterns and feminine domesticity, as her interviewees agree that they would not want to select an immodest girl for their wife lest they be surprised by the way she “actually” looks. According to one sandy-haired fellow,

I need to see my girl in a natural state. Eventually, we’re gonna get married, and we’re gonna have to see our wives without makeup, and for me, I don’t wanna see that to be a shock [laughs]. I wanna know what my wife’s gonna look like in a natural state, without any makeup on, so really, I say no makeup at all (qtd. in Braendel, “What Guys Really Think”).

Braendel seems to think that the inclusion of these videos is beneficial for girls as they illustrate that they need not be dolled up to “get” a man or to impress a boy at the mall. Unfortunately, these videos privilege boys’ voices and experiences over girls’, thereby contributing to the very problem of girls’ self-denigration and compliance with male-defined beauty standards that Braendel claims to reject. Their inclusion, moreover, speaks directly to evangelical Christianity’s failure to provide systematic analysis of oppression and injustice; rather than encouraging girls to forge their own way and reject beauty standards because they are hurtful and unrealistic, Braendel insists that girls dress “differently” from mainstream women so as to please conventionally attractive Christian men.

Thus, women’s voices and experiences are thwarted once again by the fantasies of white men, and the projected images of anonymous, teenage white men at that. Interestingly, the white men in this video are the tools of an older woman; while the video is certainly problematic, no one can fault its characters for their honesty. In other words, it is, oddly, Braendel herself, not the four young men in her video, who wields patriarchal power over the teenage girls who attend her fashion events. This curious circumstance and the equally curious power of these videos demand more attention, and I will return to them in the next section, which focuses on women’s corporeality and the male gaze. First, I’d like to delve deeper into the rhetoric of women’s submission in the evangelical fashion and beauty industry, specifically as it surfaces in the work of author Ginger Garrett.

In Garrett’s *Queen Esther’s Secrets of Womanhood: A Biblical Rite of Passage for Your Daughter*, the import of women’s and girls’ self-sacrifice in the evangelical tradition comes into clear focus. Garrett wrote this book specifically for evangelical mothers, intending to provide “a blueprint for a whole year’s worth of activities” through which they can bond with their daughters (back cover). In this hybrid self-help guide/Bible study workbook, Garrett instructs Christian mothers how best to raise and relate to their fledgling adolescent girls, thus recalling McDannell’s contention that mothers are have historically been considered to “hold the key to the salvation of their children” (80). *Queen Esther’s Secrets of Womanhood* is fittingly based around the story of Esther, a biblical woman (or girl, really – most agree she was about twelve in the story) who allegedly led the Jews to freedom by gaining the affection of Xerxes I, king of Persia. Garrett believes Esther held a great deal of power, and
speaks to this throughout her book. According to Garrett, however, this power lay not in Esther's intellect or physical strength, but rather in her commitment to sacrificial love. Garrett claims, Esther loved. She loved a king by submitting to him although he might not accept her nationality. She loved Mordecai by submitting to his authority. She loved her people by trying to save them...Esther is one of the most celebrated women in history, but she made great sacrifices. If she had fought against any one of these circumstances, she probably would have lost her place in God's purpose. (102)

Thus, for Garrett, Esther's motivation toward self-sacrifice in the face of more powerful men was her saving grace, and, somewhat ironically, her most powerful attribute. This contention constitutes a theme in Garrett's book, and she speaks to it often. It would be disingenuous to paint this as Garrett's overarching point, however; in fact, despite Garrett's celebration of women's self-sacrificial "nature" (apparently, for Garrett, sacrifice and subjugation are innate features of the female sex), her real commitment in her books and her speaking events is to the importance of women's and girls' friendship and community.

**Problematizing Submission through Women's Solidarity**

"A Harvard nurses' study came out with a finding not too long ago that adult women who have deep connections with other women cut their risk of death over a nine year period by sixty percent," Garrett explained to me in a telephone interview. "So it can actually negatively affect our physical health when we engage in any social ritual, whether it's comparing or gossiping, that breaks our connection with other girls." Garrett's belief in the importance of women's community undergirds all of her work, including the two books investigated as part of this study. It was, in fact, her primary motivation towards writing. In the same interview, Garrett told me,

I got my start writing when I was a newlywed, and my husband and I were going through a long season of infertility and miscarriages. I couldn't find anything either at the Christian bookstores or secular bookstores that provided any comfort...That whole experience was a pivotal spiritual and professional turning point because I had really spent a lot of time in my own cocoon of comfort, and going through that long period of suffering, I realized that it's really just the way of the world, and I wanted to find ways to comfort other women. So I got into writing as a way of reaching out to other women.

While Garrett's interest in the promotion of evangelical women's solidarity may strike some secular readers as distinctively feminist and therefore somewhat out of place, it is a familiar theme for many conservative Christian women. Recall Griffith, whose study of evangelical women's ministries revealed that these organizations are often a main source of support for their members. According to Griffith, many evangelical women "have intentionally forged alternative communities that claim to provide not only (or even primarily) theological or doctrinal instruction but loving nurturance, diagnosis of women's particular ills, and guaranteed treatment" (God's Daughters 20). Here, Griffith refers specifically to women's Aglow ministries, which were the focus of her ethnography; in recent years, however, a number of other feminist ethnographers have shown that this trend exists throughout the woman-specific spaces in the evangelical milieu.

For example, scholar Brenda Brasher claims that one of the most critical findings of her recent ethnography of evangelical fundamentalist women was that women consistently form all-female groups within fundamentalist congregations that run parallel to mixed-sex congregational activities. These ministries form social networks among women that provide them with a valuable source of religious alterity and institutional power. For when fundamentalist women want to exercise power, want to change their congregation in any way, these groups provide them with an organizational base from which to operate. (20)

One of the primary ways in which these woman-only alliances manifest is through "congregational women's ministry programs," which Brasher claims "create and sustain a special symbolic world, parallel to the general one but empowering to fundamentalist women" (5). These symbolic worlds, moreover, "encourage the development of female enclaves, intimate social networks of women that also empower women by functioning as a material and spiritual resource for female fundamentalists in distress” (5). These symbolic worlds may also be formed outside of the traditional congregational format, as is the case with Braendel's speaking events.

Braendel's "Modest is Hottest" fashion shows, in particular, indicate
the ways in which fashion and beauty ministries for evangelical girls can help form, however momentarily, the gynocentric, supportive female enclaves Brasher references. Since Braendel operates in the evangelical sphere, her events are almost always gender-specific; this is due mostly to the patriarchal nature and structure of conservative Christianity, which generally disallows women’s ministering to mixed-gender audiences. Braendel’s role as head lecturer, however, subverts the conservative gender norms that so heavily inform contemporary evangelical women’s lives. Thus, Braendel’s events are important examples of evangelical women’s creative leveraging of power. As feminist scholar Alyson Jule suggests, “students within an evangelical subculture are encouraged to perform gender so that masculine behavior is connected to public displays of influence and so that feminine behavior is connected with intimate, more private displays. Men are rehearsed into the role of performer; women are rehearsed into the role of silent audience member” (44). Braendel’s speaking events and Garrett’s books provide girls with the rare opportunity to receive sacred and spiritual truths from a female authority, thereby illustrating that evangelical women can, and often do, engage in “public displays of influence.”

Moreover, while the forced segregation of Braendel’s events certainly points to the inequalities that pervade contemporary evangelical culture, the physical absence of men and boys is instrumental in creating a space where girls feel safe sharing their emotions and ideas. Braendel considers this comfortable atmosphere of mutual acceptance essential to the efficacy of her events, during which she often asks participants to self-disclose during deeply emotional rituals. For example, Braendel explained during our interview,

After I share the gospel at my teen events, I have the girls write down on a postcard what they’re gonna change about their lives or what they’re going to commit to...A lot of girls write down it’s cutting that they’re giving up, anorexia, overeating, alcoholism, drugs, some are addicted to sex at this age, and you know, they’re teenagers! Sometimes we hold a mirror over a trash can, and girls bring their cards up and they smash ‘em with a hammer. It’s very powerful.

The power of this communal catharsis was not lost on the girls I spoke with. 15-year-old Caroline Bain, for example, told me during a telephone interview that “all girls should go to Shari’s events” because they “really impact you.” Even more, she informed me that she and her peers leave Braendel’s “Modest is Hottest” speaking events “really loving how... we think about ourselves, because we have so much more confidence with who we are.” Bain’s emphatic endorsement of Braendel’s ministry indicates, at the very least, that these events have bolstered her self-esteem, helping her navigate the difficulties inherent to “growing up girl” in the contemporary West.

In short, the evangelical fashion and beauty ministries I investigated seemed to provide girls with a safe space in which they could begin constructing a sense of self. These ministries also, however, reinscribe constraining notions of femininity and womanhood, including doctrines of women’s self-sacrifice and submission. These seemingly disparate messages demonstrate the struggle between the traditional patriarchal structure that undergirds conservative evangelical Christianity on the one hand and the acute power of women’s experiences and communal identity on the other.

Corporality in the Christian Tradition

In addition to the themes of self-sacrifice and submission, one of the key motifs in these ministries was the equation of the female sex with corporeality, the second of the “twin sins.” The investigation of contemporary evangelical treatment of the body can help us better understand the evangelical tradition as a whole, for, as McDannell points out, “The dualism that associates the sacred with religion and the body with secular concerns inadequately describes how Christians have used the body as the primary mediator to express and appropriate religious experiences” (267). This is certainly true for the fashion and beauty ministries in question. Thus, beginning with a short history of women’s corporeality in the Christian tradition, I will investigate the treatment of teen girls’ embodiment in modern evangelism.

Much like the doctrine of women’s submission, the cultural construction of women as body has a long and arduous history in Western culture. The centrality of this misogynistic construction to the patriarchal worldview of the ancient Israelites is evident throughout Judeo-Christian texts and has been the subject of many a feminist treatise concerning the condition of woman in the historical and
contemporary West. Most agree that the fabricated link connecting woman and nature/the body helped form the basis for the subjugation and exploitation of women in the Judeo-Christian tradition discussed above. Christian feminist Elizabeth Powell articulates this relationship well when she writes,

the body belongs to the fallen world and causes the human spirit to continually be tempted back into sin. Women have historically paid a heavy price for the inculcation of these antibody structures as female selves are aligned with the devalued body while male selves are freer to inhabit the spiritual world. Implications for women have been, for example, carrying the responsibility and shame for men's struggles with lust, or suppressing their rich variety of gifts within the circumscription of patriarchal definitions of the maternal role. (103-04)

The reduction of woman to base corporeality has been no small problem for the female sex; in addition to encouraging the general subjugation of women to men, the understanding of woman as body translates directly into the overt denigration of the female self and therefore contributes to the culture of shame and silence surrounding women and their experiences – corporal, intellectual, or otherwise. The effects of equating women with base corporeality are abundantly clear in contemporary Western culture, wherein female victims of violent sexual assault are still told, time and again, that their particular state of embodiment compelled their assailant to attack. The common evangelical charge that girls and women are at fault when subjected to the “unwanted attention” or lust of men (which, both Braendel and Garrett argue, is innate to male biology) is a necessary building block toward the cultural acceptance of these rape apologetics. Today, men are consistently painted as people with “needs” and uncontrollable sexual urges, while women, by contrast, are expected to be pure and virginal, burdened with the task of deflecting lusty men. Further complicating women’s impossible positionality is the paradoxical cultural assumption that women are inherently carnal: according to this tropism, people with vaginas, while not necessarily sexual themselves, are inherently at fault for the sexual temptation of men away from their innate spiritual purity.

This convoluted rhetoric has resulted in exceedingly complicated rules, regulations, and conceptualizations of the female body in contemporary evangelism. Indeed, despite (or perhaps due to) evangelicals’ often vehement opposition to women’s bodily displays and sexual autonomy, the objectification of the female body in evangelical Christian ministries and media is widespread. Evidence of the identification of women with base corporeality pervaded my primary sources, cropping up in each interview conducted, book read, article perused. In these sources, however, women’s corporeality is not “celebrated” (read: exploited) in quite the same ways it is in contemporary secular culture; rather than using women’s flesh to sell products or boost ratings, evangelical texts objectify women’s bodies as significant sources of temptation that require careful oversight and control. Braendel, for example, has five clearly defined rules that she claims will safeguard girls against appearing immodest. These rules are important, she told me, because even when girls don’t mean to dress “provocatively” they often “actually cause their guy friends to sin.” Her rules include prohibitions as these (drawn from our interview):

1. No bra straps should ever be showing . . . And I don’t care if they’re plastic, yellow, red, purple, whatever, clear: nuh-uh. That’s still a bra strap.

2. No bust exposure. That means no cleavage, I don’t care how busty you are . . . It also means wearing shirts that don’t have sayings plastered across your boobs, because sometimes that draws attention to someone.

3. No bellies . . . Bellies are not for your regular everyday clothes... When you have your belly showing, you know, guys find bellies very sexy. And guys’ brains are not wired the way girls’ brains are. So when a guy looks at you, he thinks things that you really don’t want him to think.

4. No bottom exposure. I don’t wanna see words written across your rear end, and I also don’t wanna see short skirts or shorts.

5. No “bubbling,” and that’s a term I invented for when your clothes are too tight and they cling to your body . . . That’s no good.
Clearly, then, both “evangelical” and “secular” treatments of women’s bodies amount to discipline and regulation; the evangelical approach is simply more overt. The systematic regulation of women’s bodies—whatever form it takes—is, however, nothing new. “Viewed historically,” explains feminist philosopher Susan Bordo, “the discipline and normalization of the female body . . . has to be acknowledged as an amazingly durable and flexible strategy of social control” (166). This came into clear focus in my interview with author Ginger Garrett, whose Christian evangelical books often target teen girls and deal specifically with issues of beauty and embodiment. When I asked Garrett to describe for me “true beauty,” she relayed an interpretation of Exodus 38:8, which references women’s sacrifice of their mirrors to God during the building of the Tabernacle. According to Garrett,

The Bible teaches that Egypt was a land of enslavement, and the men would make bricks and be treated like animals. And so the women would be at home, you know, taking care of the kids and all that. The women had a pact between themselves, that they would make themselves beautiful. So when their husbands came home, after a day of slavery and humiliation, without even having to say a word, the women were automatically communicating through their appearance that ‘You are worthy, and are honored, and I’m going to give you my best.’ So when God led them out that period of enslavement and humiliation the women donated their mirrors to the tabernacle as a way of worshipping what God had done through them and through their beauty.

Garrett’s interpretation of this scripture is interesting in that it gestures to the Judeo-Christian tradition’s long legacy of objectifying images of women’s bodies. Like modern secular and religious media, this story reduces women to their base corporality by suggesting that their “greatest gift” to God (in other words, their most valuable attribute) is their material beauty. This objectification functions as a form of control because it denies their value in other, more active arenas (craftsmanship, temple construction, speaking, et cetera), leaving them to rely entirely upon their physicality for power and redemption. Finally, Garrett’s interpretation proposes that the objectification of the female body serves to advance not the lives or feelings or self-worth of the women themselves, but rather the lives and self-worth of men, their de facto (and historically de jure) owners.

As if to confirm this point, Garrett goes on to claim that beauty is predicated upon self-loss and lack of agency. According to Garrett, “the moral of the story is that beauty, in the biblical definition, isn’t about what we can get for ourselves, acceptance or love; the biblical definition of beauty is always keeping an eye out for how we can serve others with everything God has given us” (Personal interview). Garrett’s understanding of “true” beauty as self-sacrificial makes sense given the Christian emphasis on service and humility, but it is still another example of a belief that has been complicated by the interplay of patriarchal evangelical and secular cultures. The definition of beauty as necessarily self-sacrificial gains additional meaning given its placement within a larger, hyper-mediated and misogynistic Western culture, wherein women’s beauty is never their own. Just like the Israelite women in Exodus 38:8, women today are socialized to perform their beauty exclusively for men.

Garrett’s interpretation, therefore, speaks not only to the patriarchal nature of the conservative Christian church, but also to the centrality of what scholar Laura Mulvey calls the “patriarchal male gaze” in the control and maintenance of women’s bodies in the secular West. Explains Mulvey,

In a world ordered by sexual imbalance, pleasure in looking has been split between active/male and passive/female. The determining male gaze projects its fantasy onto the female figure, which is styled accordingly. In their traditional exhibitionist role women are simultaneously looked at and displayed, with their appearance coded for strong visual and erotic impact so that they can be said to connote to-be-looked-at-ness. (33)

This phenomenon might well be influenced by the historical Christian emphasis on women’s embodiment. Regardless, the patriarchal male gaze is prominent throughout Western culture and was thus implicated by each of my primary sources.

15-year-old evangelical Bain, for example, made clear the importance of the patriarchal male gaze to her own beauty-related decisions during our telephone interview. Upon learning through one of Braendel’s ministries that “guys say ‘Less makeup,’” Bain drastically reduced the amount of eye makeup she applied each morning. In her words, “Most
girls think that guys like more makeup and that we, you know, should pile on the makeup, cover up our skin, and I guess that’s what I thought. But when I saw all of those guys [in Braendel's video testimonials] saying ‘Less makeup, you wear too much of that eye stuff;’ it really made me think.” Learning about the specific preferences of four teen boys she had never met had a definite impact on Bain’s presentation and understanding of herself; according to Bain, the video testimonial not only changed the way she wore her makeup, but also caused a shift in her “self-perception of how girls are supposed to be” (Personal interview).

Another powerful example of contemporary evangelical Christianity’s treatment of girls’ corporeality and the power of the male gaze surfaces in the pages of Campus Life, a Christian magazine for teens. The article, titled “What’s Wrong with Wearing This?” considers issues of modesty with a particular focus on “What Guys Really Want.” In an “Open Letter to Girls” published at the end of the piece, the male members of popular evangelical rock band Superchic[k] write,

I’m sure most of you have figured out that the sexier you dress, the more attention you get. But even though the attention can feel good, it’s really not good for you. Everyone deserves to be loved, not lusted over. When you dress to impress, guys notice, but when you try to live a life that’s honoring Christ, a whole different set of guys notice. You just can’t tell, cause they’re not trying to look you up and down. Instead of thinking about you with no clothes on, they’re thinking about you in your wedding dress. Instead of thinking about one night of sex, they’re thinking about what it would be like to grow old with you. Instead of wondering if you’re a cheap date, they wonder if you’re gonna be a good mom.

So if you’re feeling left out because you don’t show off your body, don’t date yet, or if you’re thinking about taking it a little easier on us guys by dressing a touch more conservatively, I promise you’re going to get noticed. In fact, I can name at least five skateboarding, guitar playing, skydiving, motorcycle riding, snowboarding, rock climbing guys in this band who are going to think you’re the bomb (Penney 13).

In just two paragraphs, then, the boys of Superchic[k] manage to touch on a number of cultural tropes concerning gendered norms and the social control of women’s bodies in the contemporary West. First, they reinforce the idea that evangelical girls are at fault for unwanted or misguided male attention, not the other way around. They echo several cultural ideals regarding femininity, as well, seamlessly reproducing the image of the “perfect Christian woman,” who is well-schooled in domesticity and, as such, has lofty aspirations including (and potentially limited to) the lifelong practice of self-sacrificial motherhood. Moreover, they reinforce the gender binary that constructs men and masculinity as active (“skateboarding, guitar playing, skydiving...”) and women and femininity as passive – objects that men can, alternatively, utilize as sperm depositories (but only for “one night”!) or marry to bear and nourish their progeny.

Still, while aspects of the evangelical fashion and beauty culture clearly reproduce gender and body norms that could be harmful and constraining for our girls, Braendel’s and Garrett’s messages also bolster girls’ confidence in a way that mainstream culture does not. In fact, their ministries often promoted girls’ autonomy and self-love. This is clear, for example, in a quotation from Braendel which I borrowed for this article’s title: “My whole goal at the events,” she stated, “is to help girls know that they are beautiful exactly as they are. We all have challenges – maybe you feel like you’re a little fluffy [i.e., fat], or your nose is different from everyone else’s – but whatever it is, I tell my girls to look in the mirror and say, ‘Thank you God for making me cute!’ Because He did make everyone cute” (Personal interview). Braendel demonstrates the ambiguous relationship between mainstream beauty norms and evangelical fashion and beauty culture for teen girls: while she does reinscribe traditional notions of femininity by foregrounding women’s beauty as preeminently important and suggesting that a certain weight or nose shape are most desirable, her underlying message reaffirms girls’ innate beauty and originality. The next section explores this complex relationship, focusing on the positive body messages present in these productions and the ways in which girls use them to self-affirming ends.

Positive Body Messages in Fashion and Beauty Ministries

It is significant, first of all, to note recent shifts in evangelical fashion and beauty productions for teen girls. Case in point: Griffith's recent
book-length study on embodiment in American Christianity focused on the central role of weight loss and fasting, a trend that continued right through the 1990s. Interestingly, however, none of the ministries I investigated so much as mentioned that girls should lose weight; on the contrary, they seemed to embrace a number of body types, encouraging girls to thank God for making them “cute” no matter what their “challenge.” This marks a significant departure from the focus of the evangelical fashion and beauty industry of the late 20th century which, Griffith notes, was “notably rigorous in its steady focus on extreme slenderness” (Born Again Bodies 219) punctuated by the insistence, “Yes, God wants you to be thin and yes, you can change your lifestyle to lose weight!” (Born Again Bodies 186) This shift indicates, at the very least, that Braendel and Garrett are interested in a more fluid definition of teen evangelical “beauty” than their predecessors. My interviews with the evangelical entrepreneurs support this interpretation.

One particularly heartwarming example came near the end of my interview with Braendel, when I asked her to explain true beauty. “I hope that after the event, they understand that real beauty is them,” she told me, continuing,

With all their stuff, with all the fights they have with their brothers and sisters, with the parents that maybe aren’t so nice to them, with the sex they’ve already been having, with everything they bring in, [I hope they still know] that true beauty is God, and that He lives in us. And that we are made in his image, and that He completely forgives us for everything we’ve done, and that when they walk out those doors, when they commit to being a true committed Christian, that’s real beauty.

In this explanation of true beauty, Braendel challenges patriarchal notions of women’s bodily inferiority. To her mind, women, also, are “made in His image.” Braendel thus speaks to the innate beauty of girls, which lies more in their spirit than in their physicality.

My interviews with evangelical girls did even more to challenge these notions. Yet another transgressive and heartwarming description of true beauty came from 15-year-old Leanne MacIntyre. When asked if she could think of an example of a “truly beautiful” person, MacIntyre responded,

In sum, she told me, her brother’s boyfriend is “perfect in every way,” the true image of beauty for this 15-year-old Southern evangelical girl. Her choice is especially transgressive because the man she describes is gay. Thus, MacIntyre not only combats the construction of beauty as necessarily feminine, but also resists evangelical constructions of inner beauty and spiritual purity. This, of course, could be the subject of a separate paper; suffice it to say, here, that evangelical girls clearly do not all adhere to the heteronormative standards prescribed by the culture(s) in which they are immersed.

Interviews with other evangelical girls revealed other forms of resistance to restrictive evangelical norms for teen girls’ fashion, beauty, and sexuality. Indeed, while Bain’s description of the importance of the male gaze to her self-image is not uncommon, my interviews with other evangelical girls reveal the diversity of opinion among evangelical girls in their responses to fashion and beauty ministries. For example, 15-year-old Josephine Wright, member of the vibrant evangelical Young Life group, explained in her interview, “I think that purity has to do with your heart, not your actions or what you wear. I mean yeah, Jesus loving you does have to do with your actions, and some people see it as ‘No, no, you cannot do that,’ but at the same time He’ll always love you.” Clearly, the evangelical emphasis on Christ’s unqualified love has provided Wright with tools to negotiate the complicated and often paradoxical messages set forth in contemporary evangelical and secular culture. Moreover, in an overt display of resistance to evangelical constructions of femininity and “purity,” Wright told me, “Our ministers say girls should never dress like, too low-cut, too short, too scandalously, because they tell you that it makes boys sin. And I completely disagree with that, but that is what other people believe.” When prodded about whether or not issues of girls’ embodiment and modest dress were ever contentious or confusing for her, Wright was resolute in her autonomy, explaining that she ignores scriptures and sermons that she finds oppressive and focuses instead on more enlightening doctrine and her personal relationship
with Jesus Christ. While the subversive nature of Wright's message may not be embraced by all evangelical girls, her religious theory is broadly accepted. Emphasizing one's personal relationship with Christ is, in fact, a defining characteristic of contemporary evangelical Protestantism. By justifying her resistance to the prohibitions of "our ministers" in this way, Carpenter embodies the subtle arts of subversion that girls adopt in the face of multiple oppressions.

In sum, while evidence of corporal and spiritual objectification and exploitation certainly abounds in evangelical fashion and beauty ministries for teen girls, it is irresponsible to claim this dynamic as their defining element. Denying the spiritual worth of these ministries effectively denies the spiritual autonomy of evangelical women and girls, who often find comfort in these ministries and who, moreover, frequently construct their own faith in resistance to mainstream and evangelical conceptions of femininity. Significantly, these ministries provide a gender-specific space for girls to begin constructing their identities. This is a powerful development in a culture informed by the intersecting patriarchal spheres of contemporary evangelism and misogynistic consumerism.

Most importantly, however, the girls that attend these ministries are clearly creative, intelligent agents engaged in constructing religious and social identities in the midst of an oppressive and increasingly paradoxical "kaleidoscope" culture. This spiritual autonomy and sense of ambiguity was captured by Wright, who told me:

I believe in Jesus, I believe in God, and I believe in the savior but I don't agree with some of the teachings and I guess that makes me kind of, not necessarily hypocritical because it's my own beliefs, I mean, every person creates their own god. ..They might picture the same person but nobody speaks to him the same, nobody sees or hears or believes in the same god. And I believe that I've created my own god, not to go with what I want to have, but what I need.

By boldly disagreeing with some Church doctrine ("the teachings") and constructing a personal god to meet her needs, Wright directly challenges many of the constraints set forth by the evangelical tradition. Her church, however, remains a safe space for her, a place where she can explore her burgeoning sense of self among other faithful adolescents. Like so many other girls, Wright straddles the divide between the evangelical and the secular, selectively appropriating that which is useful from both realms.

Notes

1The Christian evangelical movement in the contemporary United States is sufficiently diverse to make the definitional task daunting, but a reasonable characterization can be found in the work of historian Randall Balmer, who describes evangelicals as all those who "insist on some sort of spiritual rebirth as a criterion for entering the kingdom of heaven, who often impose exacting behavioral standards on the faithful, and whose beliefs, institutions, and folkways comprise the evangelical subculture of America" (xii).

2For more on girls' studies, see Angela McRobbie and Jenny Garber; Anita Harris; and Mary Celeste Kearney.


4I have changed the names of all three minors.

5The translation of the word "helpmeet" in Genesis 2 is the source of much controversy in feminist biblical scholarship but nevertheless greatly informs the ideology and practice of most contemporary Christians.

6See Carol J. Adams and Marie M. Fortune, Caroline Walker Bynum, R. Marie Griffith (1997 and 2004), and Margaret R Miles.

7For example, tickets to Braendel's speaking events run about $25 per person; books by Garrett and Braendel cost roughly $14 each; and Braendel's "Teen Beauty Bootcamp" is $895 per participant, per week (see sharibraendel.com).

8For discussion on this topic, see Susan M Shaw.

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Food, Inc., the Capabilities Approach, and the Right to Healthful Food

Kami Daws

The truth about our nation’s food supply has been concealed from American consumers by the food industry with the consent of United States government regulatory agencies, the United States Department of Agriculture (USDA) and the U.S. Food and Drug Administration (FDA). The USDA is responsible for developing and implementing U.S. federal government policy on farming, agriculture, and food. The FDA is responsible for regulating and supervising the safety of food in the United States. However, according to filmmaker Robert Kenner, both of these government agencies have catastrophically failed to achieve their purpose. Kenner develops his argument in Food, Inc., a documentary film that exposes America’s industrialized food system and its harmful effects on our economy, environment and health. In response to Food, Inc., this paper will advance two related arguments based on the “capabilities approach” theory developed by Martha C. Nussbaum to justify the notion that society should secure basic entitlements for all sentient living beings. Food, Inc. provides an opportunity to expound Nussbaum’s capabilities approach and her argument to extend, and consequently correct, the dominant theories of justice derived from the social contract tradition to include nonhuman animals. In addition, this paper will examine how Nussbaum’s capabilities approach can be utilized to influence public policy changes to secure protection for nonhuman animals. Secondly, this paper will explore what it would mean to guarantee food security to all people, regardless of socioeconomic status. Ultimately, this paper will use Nussbaum’s capabilities approach to argue that the social contract be expanded, and hence corrected, to include the assurance of all humans’ right to consume safe and healthy food.

The Capabilities Approach, Animals and Public Policy

Approximately 10 billion animals are raised and killed for food production in the United States annually (Food, Inc.). According to Kenner’s film, nearly all 10 billion are raised on factory farms under inhumane conditions. Although factory farming is a common practice in industrial animal agriculture, this method is considered inhumane because livestock are raised in total confinement at high stocking density (Humane Society). A feedlot, common in factory farming, is a small confined area used for the controlled feeding of animals. Essentially, feedlots operate to fatten animals to their optimal weight before slaughtering. Food, Inc. shows viewers the harsh reality of the atrocious conditions present in factory farms in the United States. Although most factory farmers refused to allow Food, Inc. to film inside their industrial feedlots for fear their contracts with multinational corporations would be terminated, there was one brave farmer, Carole Morison, willing to allow Food, Inc. to film inside her corporate-owned poultry feedlot. After the film was released, her contract with Perdue Farms, one of the nation’s leading poultry companies, was terminated.

Kenner’s documentary reveals the inhumane conditions of corporate-owned poultry feedlots. One particular coop, not the worst according to Carole Morison, was extremely dark and appallingly overcrowded. Furthermore, multinational corporations demand these factory farm chickens be injected with various hormones, steroids, and antibiotics that stimulate rapid growth, particularly in the breasts of the chickens. As a result, the chickens in this Perdue Farms poultry feedlot suffered skeletal problems because they were unable to support the weight of their unnaturally overdeveloped breasts. Additionally, many chickens are unable to breathe because of the added weight and die before ever leaving the coop. It is important to note these abhorrent practices are not unique to Perdue Farms; this kind of mistreatment is common among all major poultry company feedlots in the United States.

Food Inc. also provides insight into the inhumane practices of the cattle industry. Although cattle are naturally designed to eat grass, the majority of the beef Americans consume comes from cattle that
are grain-fed in factory farm feedlots in order to encourage fat in the animals’ muscles. Consequently, utilizing grain as cattle feed has inadvertently been the cause of E. coli outbreaks in the United States; however, this realization has not interrupted this practice among cattle farmers in the U.S. Similar to poultry raised in corporate-owned feedlots, grain-fed cattle gain a substantial amount of weight in a short amount of time. Because of the rapid weight gain, the cattle are unable to support their weight making it extremely difficult for the cattle to walk; instead, cattle farmers push the cows with forklifts in order to transport them to be slaughtered.

In her sixth chapter, “Beyond ‘Compassion and Humanity’: Justice for Nonhuman Animals,” Nussbaum argues that her theory, the capabilities approach, can and should be extended to nonhuman animals. Nussbaum argues:

The capabilities approach provides better theoretical guidelines than do other approaches to the question of animal entitlements. Because it is capable of recognizing a wide range of types of animal dignity, and of corresponding needs for flourishing, and because it is attentive to the variety of activities and goals that creatures of many types pursue. (327)

The capabilities approach guarantees basic entitlements for nonhuman animals on the basis of their fundamental capabilities. These fundamental capabilities represent the ability of a living being to thrive based on: (1) life, (2) bodily health, (3) bodily integrity, (4) senses, imagination, and thought, (5) emotions, (6) practical reason, (7) affiliation, (8) other species, (9) play, and (10) control over one’s environment (77-78). Although Nussbaum acknowledges that aspects of the fundamental capabilities need to be interpreted differently for nonhuman animals, she asserts that her human capabilities approach can and must be expanded to include other species in order to guarantee justice for nonhuman animals. Such insight will ensure that nonhuman animals have basic entitlements that will guarantee their opportunity to flourish and discourage the inhumane treatment that causes them to suffer pain and indignity (2, 327).

In A Theory of Justice, Rawls does address nonhuman animals, but he argues against including them in the social contract. Rawls believes that humans have duties of compassion and humanity towards animals. “Certainly it is wrong to be cruel to animals,” he argues, and insists that we should be sensitive to their “capacity for feelings of pleasure and pain” (512). However, Rawls does not extend his theory of justice to include nonhuman animals. As he says, animals “are outside of the theory of justice, and it does not seem possible to extend the contract doctrine so as to include them in a natural way” (512). While Nussbaum does agree that humans have duties of compassion and humanity in the case of nonhuman animals, she further argues that their treatment is, in fact, an issue of justice, not solely an issue of compassion or humanity (331).
is humane and painless for the animals (393-402). However, Nussbaum does argue “against killing at least the more complexly sentient animals for food” (393). In the case of medical experimentation of animals, Nussbaum clearly states that while research that inflicts the risk of disease, pain, or premature death on animals is immoral, it is possible that research to promote human health and safety is acceptable if experimentation is absolutely necessary and is done humanely (403-04). Since the use of animals in research is imperative to medical advances, Nussbaum encourages that more be done to improve the lives of research animals and promotes public and philosophical discussion of this issue (404-05). Nussbaum accepts human uses of animals as long as the treatment of them does not violate basic animal entitlements.

A major criticism of Nussbaum’s philosophy on animal rights is that this acceptance contradicts her capabilities approach. According to Anders Schinkel, the “possibilities of human uses of animals that Nussbaum wishes to retain and wishes to see as morally justifiable do not go together with her capabilities approach to animal rights. More specifically, they clash with the attitude towards animals that Nussbaum’s approach intends to foster in human beings” (44). Schinkel successfully argues that the human uses of animals that Nussbaum accepts, particularly the killing of animals for food, violate various elements of her capabilities approach. For example, Nussbaum’s first capability, life, is defined as “being able to live to the end of a human life of normal length; not dying prematurely, or before one’s life is so reduced as to be not worth living” (76). In response, Schinkel asserts, “It is hard to see how an entitlement of animals to continue their lives is to be compatible with a justification of killing for food” (51). While there could be an argument made that animals raised for food are killed only after “one’s life is so reduced as to be not worth living,” this would imply that animals raised for the sole purpose of being slaughtered for food are “being used as a means to the ends of others, or of society as a whole;” a Utilitarian concept which Nussbaum rejects (Schinkel 52). Schinkel effectively disputes Nussbaum’s justification for certain human uses of animals, specifically the killing of animals for food, by illustrating the inconsistencies in her philosophy on animal rights.

Ramona Ilea examines a different source of discrepancies apparent in Nussbaum’s rationale for accepting certain human uses of animals. Ilea contends that Nussbaum’s capabilities approach allows humans to hinder animals’ capabilities, and even take away their lives, if it is for the benefit of other beings, even though Nussbaum clearly says that it is unjust to take one creature’s capabilities away for the benefit of others (Ilea 556; Nussbaum 371-93). This contradiction insinuates that perhaps Nussbaum believes that some lives may be worth more than others; however, Nussbaum explicitly states that the capabilities approach does not need to consider the question of how much each life, human or nonhuman, should count in the social calculus (Ilea 557; Nussbaum 383). Although Nussbaum seems to recognize that there are discrepancies that need to be resolved, she is not clear about exactly how these variations should be remedied.

Regardless of the potential discrepancies in her philosophy on the human uses of animals, it is clear that Nussbaum would argue that the inhumane and painful killing of industrial livestock as portrayed in Food, Inc. is unjust. Furthermore, Nussbaum would argue that the inhumane treatment the animals receive while living in factory farms, as depicted in the film, infringes on the animals’ dignity and their ability to flourish and consequently violates the capabilities approach. Nussbaum states, “We can admit that a large part of the harm we currently do to animals raised for food consists in the ways we treat them during their lives” (386). Moreover, she emphasizes that “such is the case with the brutal and confining treatment of animals used for food” (402). Nussbaum believes that as people acquire more information about the mistreatment of animals, they will gain the ability to make more informed consumer choices that will eventually lead to an increase in opposition to the cruel practices of animals used for food (391-92).

Despite the inconsistencies she finds in Nussbaum’s philosophy, Ilea argues that the capabilities approach has the potential to influence social change, especially in the legal domain (559). According to her, it has the potential to be particularly helpful in assessing what legislative changes need to be made in order to improve the lives of animals used in agriculture. Ilea contends that the approach can be used to argue for significant changes in public policy, including laws that affect factory farming in the United States, because factory farming makes “the advantages of the theory clear and demonstrate[s] how the capabilities approach can have a powerful impact in the public domain” (560).
Industrial agriculture, in particular factory farming, restricts nearly all of the capabilities described by Nussbaum. While there may be some disagreement in the public domain concerning certain aspects of Nussbaum’s theory of justice for nonhuman animals, many who challenge Nussbaum’s methodology still oppose the mistreatment of animals in factory farms (561). According to Ilea, this sort of agreement provides a strong basis for political change, especially regarding the inhumane treatment of animals in agricultural food production.

In *Frontiers of Justice*, Nussbaum argues that in order to ban all forms of animal cruelty and eventually move towards a consensus against killing more complexly sentient animals for food, consumers must demand clear labeling of all meat to facilitate an increase in the opposition of cruel practices (391-92). If the labeling of meat included the conditions in which the animals were raised, Nussbaum believes consumers would gain the ability to make more informed consumer choices (393-94). Consumers currently lack adequate information on which to base informed consumer choices; therefore, the insistence of clear labeling of all meat may advance the goals of public policy (393-94). This objective is consistent with Kenner’s argument in *Food, Inc.* and can unquestionably be applied to large-scale agricultural food production in the United States. If all companies were required by the federal government to provide details on the labels of meat of the conditions in which the animals were raised, how the food was processed, and what specifically the meat contained, consumers would gain the ability to make educated choices. Furthermore, the ability to make informed choices would more than likely encourage opposition to the mistreatment of animals used for food. Even though Nussbaum does not expressly apply her argument for the clear labeling of meat to agricultural food production, her argument provides an ideal example of how the capabilities approach can be utilized to affect public policy change to secure protection for nonhuman animals.

**The Capabilities Approach and the Right to Healthy Food**

In addition to raising issues of animal rights and questioning the practices of factory farming in the industrial agriculture business, *Food, Inc.* also tackles the issue of what it would mean to guarantee all people the right to safe and healthy food. In the documentary, Kenner argues that all people, regardless of their socioeconomic status, should have the opportunity to consume safe and healthy food. However, currently in the United States, a sizeable portion of the population cannot afford to purchase healthy, unprocessed food. At present, as Kenner points out, soda products are less expensive than bottled water, hamburger meat is cheaper than fruit, and vegetables cost more than a bag of chips (*Food, Inc.*). Unhealthy food products continue to be the lowest-cost options at the grocery store because they contain subsidized ingredients. On the surface, the array of products at the grocery store appears to be diverse, but nearly all processed foods are made with refined grains, namely corn. For example, corn products include carbonated beverages, breads, breakfast cereals, condiments, desserts, candy, snacks, meat products, dairy products, and even batteries, charcoal, and medical drugs. According to Kenner, what appears to be an assortment of different industrial food products at the grocery store is actually only clever rearrangements of corn. This scheme reflects work of powerful multinational food and agricultural corporations that have successfully endorsed a system of corn subsidies.

Currently, federal policy allows corn to be sold below the cost of production. This policy is the result of the United States farm bill, a comprehensive or “omnibus” bill passed every several years by the United States Congress. The farm bill in its current form—the Food, Conservation, and Energy Act of 2008—will remain in effect until 2012 (House Committee on Agriculture). The purpose of the U.S. farm bill is to address any and all regulations pertinent to agriculture, as well as any matter that falls under the jurisdiction of the USDA (Dept. of Agriculture, “2008 Farm Bill”). Specifically, the U.S. farm bill determines which crops the federal government will subsidize and at what level. This decision impacts both the price and availability of foods and determines how equally they are distributed (Center for a Livable Future).

In recent years, multinational food and agricultural corporations have spent an extraordinary amount of money to lobby Congress in hopes of influencing the U.S. farm bill (*Food, Inc.*). According to the Center for Responsive Politics, the total amount of money spent annually on lobbying in the agribusiness sector totaled over $133 million in 2009. Large-scale food and agricultural companies that manufacture industrially processed foods have a vested interest in buying these crops, specifically corn, below the cost of production. This system enables
them to buy cheap corn subsidized by the U.S. government and in return ensures that industrial food products made from corn remain the lowest-cost options for consumers. This system widens the price disparity between nutritionally valuable food and nutritionally poor food products.

At present, industrially processed foods containing calorie-dense grains, fats, and sugars are far more affordable than lean meats, whole grains, and fresh vegetables and fruits (Darmon and Drewnowski 900-04). The resulting diets produce a hidden cost, since unwholesome calories contribute to a variety of health-related problems such as obesity, diabetes, and coronary heart disease (US, CDC, “Overweight”). The cheap shelf price of nutritionally poor, calorie-dense food is attractive to consumers in general, but particularly to lower-income families who cannot afford more healthy products.

Food, Inc. highlights the struggles of an American Hispanic family that is unable to afford nutritionally valuable food. In an interview, the mother, Maria Gonzalez, admits to feeling guilty about the food she provides her children; however, the family cannot afford the healthy alternative. She says, “When you only have a dollar to spend and you have two kids to feed, either you go to the market and try to find something cheap or you go to a drive thru and get two small hamburgers for them” (Food, Inc.). It is clear that low-priced food, either bought from the grocery store or from a fast food restaurant, is the family’s only option. Cameras follow the family to a local supermarket where they are forced to choose between the high-priced, nutritionally rich food and the affordable, industrially processed food. In the produce section of the supermarket, their options are particularly limited. Mrs. Gonzalez says in an interview, “Sometimes you look at a vegetable and you say you could get two hamburgers for the same price” (Food, Inc.). According to Kenner, this is no accident. The least expensive supermarket products are the same products made from heavily subsidized ingredients such as corn. Because it is inexpensive to feed agricultural animals subsidized corn, the price of meat has declined (Food, Inc.). As a result, a cheeseburger from a fast food restaurant or packaged ground beef from the supermarket is less expensive than fruits and vegetables. Because lower-income families simply do not have the resources to purchase nutritionally valuable food, the leading predictor of obesity in the United States is income level (US, CDC, “Overweight”).

Obesity, in turn, is linked to Type II Diabetes, which has become an emerging epidemic among the poor. Recent research shows that 23.6 million people in the United States have diabetes. Type II Diabetes accounts for 90 to 95 percent of all diagnosed cases (US, CDC, “Diabetes”). In recent years, more and more children are being diagnosed with either Type II Diabetes or Pre-diabetes. One of the major causes of Type II Diabetes is obesity (US, CDC, “Overweight”). As depicted in Food, Inc., Mr. Gonzalez has Type II Diabetes. Although a nutrient-rich diet would improve his health and prognosis, the family has no other choice but to purchase the lowest-cost foods. This is a reality for a considerable portion of the United States population. Food, Inc. demonstrates the inaccessibility of healthy food. Grass-fed beef, antibiotic-free poultry, and organic produce are not readily available to the majority of Americans, and what healthy foods are available are extremely expensive, too expensive for the vast majority of people living in the United States. The industry blames obesity, and subsequent diseases, like Type II Diabetes, on a crisis of personal responsibility (Food, Inc.). However, the industry has deliberately engineered industrially processed food and has intentionally made these products inexpensive. Unsurprisingly, this conspiracy benefits multinational corporations that are profiting from the population’s deficient health. Essentially, Americans are being deprived of their right to have access to reasonably priced, nutritionally satisfactory food. This is a problem of justice that requires a restructuring of the social contract.

I advocate expanding the social contract to include the right to healthful food. In Frontiers of Justice, Nussbaum provides a list of the central requirements that are necessary to live a life of dignity (75). The capabilities approach is an account of minimum core social entitlements that Nussbaum believes must be guaranteed to all human beings so that each person has the ability to flourish (75). The failure to secure these fundamental entitlements for all people results in injustice (Nussbaum 75). I think Nussbaum’s second capability, bodily health, is particularly applicable to food security, by which I mean the availability of and access to healthful food. Nussbaum defines bodily health as “being able to have good health… to be adequately nourished” (76). Currently, this is not the case for a significant percentage of the American population. If people
are persistently deprived of nutritious food, then they are most certainly being denied their right to have good health. According to Nussbaum, a “society that does not guarantee these [capabilities] to all its citizens…falls short of being a fully just society, whatever its level of opulence” (75). Because people in the United States are clearly being denied their bodily health, it is reasonable to assert that, at present, American society fails to attain justice. In order to correct this problem of injustice and assure people their bodily health, the social contract must be expanded to include this fundamental entitlement: the right to healthful food.

This restructuring of the social contract begins with United States regulatory agencies, specifically the U.S. Department of Agriculture and the U.S. Food and Drug Administration. As previously mentioned, the USDA is responsible for developing and implementing federal policy on farming, agriculture, and food, while the FDA is responsible for regulating and supervising the safety of food in the United States. However, both of these government agencies have been disastrously unsuccessful in fulfilling their responsibility to protect American citizens from unsafe food. This is largely because these government regulatory agencies are being controlled by the very companies they are supposed to scrutinize (Food, Inc.). For example, during the Bush Administration, Charles Lambert was appointed the Deputy Under-Secretary for the USDA Marketing and Regulatory Programs. Prior to being appointed to the USDA, Lambert was employed by the National Cattlemen’s Beef Association where he worked as chief lobbyist for the beef industry for 15 years (Food, Inc.). Also under the Bush Administration, Lester Crawford was appointed Commissioner of the FDA, the highest-ranking position in the agency. Prior to being appointed by the President, Crawford served as the executive vice president of the National Food Processors Association, the organization responsible for lobbying Congress on behalf of the food, beverage, and consumer products industry (Food, Inc.). In actuality, the U.S. government allows these multinational food and agricultural corporations to control its regulatory agencies. This has led to a tremendous lack of transparency in the oversight of the USDA and FDA. As a result, foodborne illness outbreaks have become increasingly more common.

A foodborne illness is any infection caused by the consumption of contaminated foods or beverages (US, Dept. of Health and Human Services). While there are many different disease-causing pathogens that can produce a variety of foodborne infections, the most commonly recognized foodborne infections in the United States are those caused by the bacteria *Escherichia coli*, typically referred to as E. coli (US, Dept. of Health and Human Services). The recent increase in E. coli outbreaks can be attributed to the high-grain diet cattle are fed in Concentrated Animal Feeding Operations (CAFO), the large beef feedlots used for the controlled feeding of cattle prior to slaughtering (Food, Inc.). Because cattle are not naturally designed to eat corn, a corn-rich diet causes increased acidity levels in their digestive tracts that allow bacteria, like E. coli, to survive and replicate. Therefore, a corn-heavy diet in cattle produces a higher incidence of E. coli, most notably the potentially deadly strain E. coli O157:H7 (Food, Inc.). The prevalence of E. coli O157:H7 among feedlot cattle is alarming. In 2003, research was conducted to determine the pervasiveness of E. coli O157:H7 among feedlot cattle in the four major feeder-cattle states in the United States (Griffin et al. 127-35). Researchers collected fecal samples from 73 feedlots throughout Kansas, Nebraska, Texas, and Oklahoma. The results concluded that 95.9 percent of feedlots had at least one positive fecal sample (Griffin et al. 127). To make matters worse, cattle constantly stand ankle-deep in manure while living on CAFOs; this amplifies the spread of E. coli among cattle. By the time the cattle are transferred to the slaughterhouse where the animals are processed for consumption, their hides are covered in manure. With the incredible number of animals being slaughtered per hour in industrial facilities, it is impossible to prevent the manure from contaminating the carcasses of the cattle that are processed and sold as food products (Food, Inc.). This is how E. coli proliferates and causes foodborne infection in the American populace.

In addition to beef, other crops, such as leafy-green vegetables, have been contaminated with E. coli O157:H7 due to the run off from factory farms – as evidenced from the 2006 outbreaks in spinach in the U.S. (Ajlouni et al. 232-37; Food, Inc.). While there have always been foodborne illness in the United States, occurrences have increased in recent years as a result of larger processing plants. In the 1970’s, there were thousands of slaughterhouses in existence in the U.S. Currently, there are 13 slaughterhouses that process the majority of beef that is
sold in the country (*Food, Inc.*). These larger industrial processing plants provide an environment that encourages disease-causing pathogens to spread. Additionally, the sheer size of large processing plants makes the inspection of carcasses impossible. All of these factors have contributed to food-related illness outbreaks in the United States, a number of which have resulted in death, mainly as a consequence of E. coli O157:H7.

*Food, Inc.* illustrates the severity of foodborne illness outbreaks in the United States through the portrayal of Barbara Kowalcyk and her two-and-a-half year old son, Kevin, who died from E. coli O157:H7. In late July 2001, Kevin contracted E. coli O157:H7 from a contaminated hamburger. Twelve days later, Kevin Kowalcyk died from Hemolytic Uremic Syndrome, a common outcome of E. coli O157:H7 in young children. The tainted hamburger meat that killed Kevin was not recalled until 16 days after his death. This delay in response is due to the lack of authority the USDA has in implementing recalls and closing contaminated processing plants.

Until the early 1990’s, the USDA Food Safety and Inspection Service (FSIS) maintained the ability to implement microbial testing for disease-causing pathogens in industrial processing plants and shut down any plants that continuously failed to meet government limits on bacteria (*Food, Inc.*). However, in 2001, the Fifth Circuit Court of Appeals ruled that the USDA did not have the legal authority to close processing plants that continuously produce pathogen-contaminated food (*Food, Inc.*). After Kevin’s death, Barbara Kowalcyk became an advocate of increased safety standards for meat and poultry. As a result of her advocacy efforts, the Meat and Poultry Pathogen Reduction and Enforcement Act, also called Kevin’s Law, was introduced to the United States Congress in 2005. Kevin’s Law requires the USDA to perform microbial testing to identify pathogens that threaten human health and establishes performance standards to reduce the presence of these harmful pathogens in processed meat. Additionally, Kevin’s Law affirms that the USDA has the authority to close processing plants that continually violate health standards (Eshoo). Despite the efforts of Barbara Kowalcyk, Representative Anna G. Eshoo and the 22 congressional co-sponsors, Kevin’s Law was never enacted into law (*Food, Inc.*). The defeat of Kevin’s Law reflects the tremendous influence the food conglomerates have over Congress. In an interview, Barbara Kowalcyk says, “You put faith in our government to protect us, and we’re not being protected on a most basic level” (*Food, Inc.*). The Centers for Disease Control and Prevention estimates that 76 million American are sickened, 325,000 are hospitalized, and 5,000 die each year from food-related illnesses (US, CDC, “Foodborne Illness”). Nevertheless, the U.S. government continues to neglect food safety concerns, much to the approval of multinational food and agricultural corporations.

Although it is the responsibility of the U.S. Department of Agriculture and the U.S. Food and Drug Administration to protect American citizens from unsafe food, in actuality, these regulatory agencies do not possess the power to effectively fulfill their purpose. At present, the FDA only has the authority to request — not the authority to require — a recall. The powerlessness of the USDA and FDA can be attributed to a lack of active and effective food safety legislation in Congress. Because the majority of food safety legislation would result in added costs to multinational food and agricultural corporations, these companies lobby against it, and often successfully, as in the case of Kevin’s Law. As a result, these regulatory agencies continue to be ineffectual, while the federal government remains apathetic and food conglomerates maintain their dominance. The outcome of this corrupt scheme is unsafe and unhealthful food that a vast majority of the American population has no choice but to consume. This is why a broadened social contract is needed, one that ensures consumer confidence and guarantees safe and nutritious food for all American consumers.

### A Broadened Social Contract

The challenge to expand the social contract to include the right to reliable and nourishing food necessitates a multi-faceted solution to a very fundamental problem. The social contract I am suggesting is primarily an agreement between the federal government and consumers; however, in order for this contract to be entirely effective, supplemental contracts involving multinational corporations and agricultural farmers are needed. The supply of and access to non-contaminated, nutritionally valuable food is ultimately the responsibility of the US government. Congress has the capacity to adopt legislation that enhances the authority of the USDA and FDA to more effectively implement and enforce health standards. If Congress generated more legislation to protect consumers...
from the unsanitary and often dangerous practices of these food conglomerates instead of ignoring food safety legislation to the benefit of these companies, there would be fewer food-related sicknesses in the United States. Rather than subsidizing unhealthy food, the government could support organic agriculture so as to ensure the accessibility of healthful foods to all people regardless of income-level. The most important aspect of this social contract is the accountability of the American government, specifically Congress, to protect its citizens and guarantee a safe and healthy food supply. It is, of course, we American citizens ourselves who are ultimately responsible for influencing policymakers to adopt effective food safety legislation. This contemporary approach to the social contract requires elemental change in all aspects of the United State’s food industry; however, these changes are possible with the consistent compliance of the actors involved.

This paper closely examined Martha Nussbaum’s capabilities approach and its application to the system of food production in the U.S. In order for people to have good health, they must have access to nutritional food at reasonable prices. Despite various discrepancies in Nussbaum’s philosophy of the human uses of animals, I argue that her capabilities approach can be utilized to affect public policy change to secure protection for nonhuman animals, especially in the realm of large-scale agricultural food production in the United States. Furthermore, I argue that the social contract be extended, and thus corrected, to include the guarantee of the right to safe and healthful food. There is always the possibility that consumers will reject nutritionally valuable food and opt to eat unhealthy industrially processed food. But, with the guarantee of the supply of and accessibility to healthful food, consumers will at least have knowledge of what it is that they are eating as well as the opportunity to choose. These rights are currently denied to a sizeable percentage of the United States population.

Works Cited


On the Fence: The Role of Language in Cognition

Javier Gomez-Lavin

What is the relationship between language and cognition? Some philosophers argue that language use requires a unique form of mental representation different from those forms used by non-linguistic animals. Others argue that it does not fundamentally alter or restructure the cognitive systems that employ it.

This later view is popular among those that endorse an embedded and embodied approach towards cognition. Embedded and embodied cognition (hereafter referred to as “EEC”) replaces complicated internal representations, or mentally instantiated concepts, with a continuous interaction between the brain, body and the environment. Take long-division as an example: we rarely do long-division in our heads, relying instead on the interaction between arithmetic thought, pencil and paper. In this example the marks on the page serve as a “scaffold” that simply extends the biologically basic onboard representational systems, allowing us to solve the task with relative ease. It is easy to see how proponents of this approach view language as just such a scaffold – as a provisional, malleable, external structure that extends cognitive processes without transforming them.

The most prominent defender of this embedded and embodied approach to language is Andy Clark. In support of his argument, Clark offers a lengthy series of empirical studies. I argue that these studies, when closely examined, do not support his view, and indeed actually lend credibility to the opposing thesis: that language does require a fundamental transformation of the cognitive system. In addition I
In the second section I provide a more detailed characterization of the two competing theses of cognition, Clark’s version of the EEC and the traditionalist approach. I then focus on each account’s take on language, finally sketching out the beginnings of an intermediate compromise. The third section is composed of an extended examination of a few salient studies Clark uses in support of his thesis. I summarize each study, describe Clark’s take on the results and, subsequently, demonstrate how they fail to support his avowed view. In addition, I present the results of a supplemental study which motivates the intermediate account introduced in the next section. The final section recounts the evidence provided for this compromise and places it in the context of the larger debate surrounding this divisive issue.

Background

For hundreds of years traditional approaches to understanding cognition conceived of cognition apart from sensation and action. This view originates with Rene Descartes’ famous argument that the mind can exist as a distinct entity separate from the body. In Descartes’ view the “mind” is conceived as pure thought, understood as distinct from the cognitive processes that are related to the body, such as sensation (Chalmers 15-17). For Descartes the body transmits information, via the senses, to the mind which then processes the information sending instructions directing the body to act accordingly. In the philosophy of artificial intelligence (“AI”) this format is known as the “sense-plan-act” architecture (hereafter, “SPA”). The SPA is one way to functionally decompose human behavior (Bechtel 53-62). Relating it back to Descartes’ model, sensory inputs transmit information about the environment, encoding it into internal representations. A central processor, the “mind,” then assesses the information and forms a plan, which is relayed to the body. Finally, the body carries out the plan by, for example, moving about or manipulating the environment as directed.

Think of this process in the game of chess. In a typical chess game, a player will first look at the board, noticing all of the pieces along with their distinct positions. In doing this the player gathers information about the current state of the game, e.g., whether a king is in check or a pawn threatened – this is equivalent to the “sense” part of SPA. Given that the player knows the rules of the game, she will then combine this information with the proscribed rules to form a “map” of her possible moves. In weighing the consequences of her possible moves she will attempt to select the move with the most beneficial outcome, e.g., sacrificing a pawn to remove the king from danger. This cognitive process of managing and manipulating information is the “planning” in SPA. Lastly, the player physically manipulates the piece to carry out the planned move; this is, not surprisingly, the final part of the triptych – action. It is important to note that the entirety of the cognitive (thought) process takes part internally and separately from the player’s perception of and action on the environment.

In order to enact the SPA, the agent in question needs to possess a full store of internal “on-board” mental representations. For example, our chess player needs to internally represent the state of the chess-game at any given time. We can imagine this as a “map” with distinct representations containing information particular to, and standing in for, any given piece. In order to effectively play the game, the player needs at least two different internal representations. The first is a representation of the current state of the board, or a mental map of the arrangement of the pieces. The second is a representation of the rules of the game: the allowed moves of each piece, the endpoint or goal of the game, etc. From the SPA account, it is almost as if our player is internally recapitulating the properties and states of the physical entities as they exist out in the world.

Many philosophers have criticized the SPA paradigm in AI and cognitive science from its inception (Bechtel 62). However, it was only in the latter part of the twentieth-century, from the 1980’s onwards, that these criticisms were developed into tenable theses opposing the traditionalist view. The EEC account of cognition is just such a thesis. As prefaced above, proponents of EEC suggest that one cannot separate cognition from sensation and action. In essence, cognition doesn’t happen in a vacuum; one cannot successfully disconnect cognition – the active managing and processing of information – from its context, its environment.
Unlike SPA, the EEC account takes cognition to be an active and continuous dialogue between the “seat” of information-processing (i.e., the brain) and the world around it (Clark 5-10). One could envision it as a feedback loop or a reflexive process: the cognitive agent manipulates the environment and uses the outcome to reassess its situation and so on. Consider someone walking into a dimly lit warehouse they have never been in before. Following the SPA paradigm, our adventurous cognitive agent would: (i) survey the expansive warehouse, (ii) form a mental “map” with representations of the various items scattered about (e.g., huge stacks of crates, forklifts, pallets, barrels, machinery etc.), (iii) envision a plan to navigate the expansive maze-like warehouse, and finally (iv) carry out the plan. However, this seems impractical if not unnatural; one doesn’t stand at the front of a warehouse attempting to compute all the variables, routes and possible actions available for every situation. This is especially evidenced in cases where actions are temporally constrained, for example, if the warehouse were on fire. A more natural course of action for our adventurer would be to move through the warehouse focusing on discreet and salient bits of information (e.g., more light coming from one side of the building, less smoke coming from another etc.) and using this information to constantly reassess his situation and change his course through the maze.

Empirically conducted studies have lent added credibility to the EEC approach. For example, David Kirsh and Paul Maglio studied how humans go about playing the game Tetris; for a detailed discussion see Clark and Chalmers (10-12) and Clark (48). In Tetris, the player is confronted with several possible geometric shapes; some are squares, others are lines, and yet others “Z” or “T” shaped etc. These shapes fall towards the bottom of the screen, and the player’s job is to rotate them so that they form interlocking rows. Once a row is complete, it disappears; incomplete rows will remain and eventually fill the screen, resulting in the game ending.

If our cognition resembled a traditional SPA architecture one would expect that a player would (i) perceive the shape, (ii) mentally rotate it so that it fits in with the unfilled row below, and then (iii) carry out the rotation by pressing the appropriate button. In this case, all of the rotation occurs in the central processor, or in the head of the player. In contrast, Kirsh and Maglio found that the player physically rotates the shape using the buttons and then compares the result of the transformation with the unfilled row below. When a rotation is found that appears to work, the player drops it into place. Their study demonstrated the effectiveness of this approach: it turns out that it takes approximately 1000 milliseconds (ms) to mentally rotate a shape while only 300 ms to perform a physical 90° rotation (Clark 71-73). The crucial point is that the planning does not take place in the central processor in the head, but rather in a feedback loop combining the environment, sensory inputs (e.g., vision), onboard information processing systems (e.g., visual-spatial processing in particular regions of the brain) and actuators (e.g., innervated muscles, hands and fingers).

The ability to physically, as opposed to mentally, rotate the shape allows us to take some of the burden off of our cognitive system. Similar to the long-division example above, our manipulation of the world around us – whether by pressing a button to rotate shapes, or writing out the steps of a division problem – removes some of the difficulty, thus allowing us to extend our cognitive capacity (Clark 72-73). The action of rotating the shape does not, in and of itself, get the player closer to the “goal,” i.e., filling the rows. Rather, it gives the player more information about the relationship between the outline of the shape and the unfilled row at the bottom. This information then allows us to fill the rows, or solve the problem, or reach a particular goal faster and with greater efficacy. The manipulation of our environment prepares us for efficient and pragmatic performance.

This notion may seem a bit foreign at first, but we manipulate our world to help us solve tasks every day. Take cooking as a quick example: people often spatially organize the recipe they are going to prepare, wet ingredients on the left, dry ingredients on the right; produce in the bowl, uncooked meat in the Tupperware, etc. We place the dog’s leash on the door handle as a reminder to take him out on a walk. We stick a note on the refrigerator reminding us to get milk and eggs. In effect, all we are achieving is a reorganization of the world around us, which helps mitigate our cognitive burden and makes our lives easier.

By describing this process more accurately, EEC has radically...
changed how we view and study cognition. It frees us from a robotic paradigm of perceive → compute → execute. It forces us to take the environment into account when studying cognition or AI. If an EEC account of cognition is correct, then we should not think of cognition as necessarily recapitulating, or transcribing, features of the world into the head. We do not have to conceive of cognition as importing a map or model of the Tetris board, chess board or warehouse; instead, we can conceive of cognitive agents simply referring to it, when needed, as it exists out in the world. Following EEC, cognitive systems let the world serve as its own best model, tweaking and cajoling it when needed to help us solve the task(s) at hand. The debate now turns on perhaps the most human trait of all: language.

Language is a highly structured feature of our environment. Our environment is saturated with linguistic entities in the form of written and spoken sentences, and those sentences have two primary constituents: individual words, and the rules – the grammar – we use to combine them. The constituent structure of language is its grammar, or the syntax used to combine individual meaningful pieces (i.e., words) into longer strings (i.e., sentences) that compose a language. For example, in our language, English, the structure prescribes how to fit words of different classes together: nouns with adjectives, verbs with adverbs, subjects with predicates, etc. This structure allows us to form and communicate an infinite number of correct (i.e., grammatical) strings (i.e., sentences) from a finite storehouse of individual, atomic, components (i.e., words). Without this combinatorial structure guiding language we would have to add additional unstructured (grammatically incoherent) strings to represent other combinations of words.

As one might foresee from the discussion above, defenders of EEC would like to leave language and its structure out in the world. In particular, for Clark, language should be viewed in the same way the EEC treats chess, long division, and Tetris. In the same way that manipulating a shape in Tetris can reveal a solution to the problem of fitting the shape into an unfinished row, linguistic structures can redirect our onboard representational resources in novel ways (45). Recall that we often manipulate our physical environment to make our lives easier: organizing the pantry so that the foods we consume the most are easily accessible, placing your car keys next to your wallet etc. According to Clark, we use words in the same way. They extend our ability to organize ideas an extraordinary degree. Words, along with their constituent structure, enable us to organize hugely disparate concepts such as “Juliet” and “the Sun” in the same meaningful space, as Romeo does when he says, “But soft! What light through yonder window breaks? / It is the East, and Juliet is the sun!” (II.1.44-45). Language, for the EEC proponent, gives rise to vastly more nuanced and complex forms of environmental manipulation or reorganization than were possible before it existed.

Perhaps that gloss is a bit too simplistic. Clark notes that language provides three facets that come together to form a “scaffold” for the cognitive system to act on. For Clark, language affords access to a cheap, arbitrary, context-free, labeling mechanism that allows the cognitive system to divvy its environment into finer or larger-grained categories. It also encodes behaviors which – when presented to or recalled by the cognitive system – allow the cognitive system to gain a familiarity and expertise not attainable by other means. Finally, Clark believes that language provides a unique toolset enabling the cognitive system to engage in meta-cognition or thinking about thinking, thus giving cognitive systems insight and some control over their own patterns of thought (44).

Clark’s account of language provides a unique, new explanation of “material symbols” (e.g., written or spoken words and numerals) and their coded strings (e.g., sentences), showing us how they enable disparate modality-specific processing regions of the brain (e.g., visual, auditory, tactical etc.) to perform complex and novel tasks. Furthermore, and most importantly, Clark argues that the implicit structure of language, as described above, needn’t be replicated in the head. For
example, he states:

Words and sentences, on this view, may be potent real-world structures (material symbols), many of whose features and properties (arbitrary amodal nature, extreme compactness and abstraction, compositional structure, etc.) simply complement, without full replication, the contributions of basic biological cognition. (55, emphasis added)

The question then arises: Is it possible for a cognitive system to use language without a profound transformation or reorganization of internal representational structures, so as to accommodate the structure of language?

The intuition against this perspective is immediately apparent. Consider a key. The key has a certain structure of grooves and ridges. But that structure is irrelevant if there is not a lock whose own organization is sensitive to the structure of that key. Intuitively, sentences are like keys and it seems sensible to think that a corresponding lock may lie somewhere in the cognitive system. From this perspective, the lock possesses corresponding structural information about the key. Without this information, embodied in the tumblers, the key could not fit into, or casually interact by turning, the lock. Much in the same way, it seems that a cognitive agent would be unable to use or manipulate words and sentences, either spoken or printed, without some kind of corresponding information about their structure stored within its own cognitive mechanism.

Yet throughout his account of language, Clark refuses to entertain the notion that a cognitive agent has to import the structure of language as prerequisite for its use. When responding to Michael Wheeler’s critique of the EEC account of language, Clark writes, “[I]t must be possible to represent syntactically structured language without using syntactically structured representations to do so (just as it is possible to represent green objects without using green representations to do so)” (57). Surely, I can represent the common phrase “the dog bit the boy” without having knowledge of its implicit structure; however, it would probably appear to me as some variation of a mental image (e.g., close your eyes and imagine a house – that would qualify as a mental image of a house). It is as if words, as they exist out in the world, lack the information necessary to be used by a cognitive system that does not have the prerequisite structure with which to process the words. Without this structure, or lock, it becomes apparent that I cannot use the string of words to guide and shape cognitive processes, much less behavior.

Overall, it is clear that Clark is exceedingly cautious in allowing restructuring in the head. However, as Whitney Schonbein notes, language is a particular case that poses a “unique type of representational problem” (8). Clark must confront the notion that any cognitive system with finite capacity must find an ecologically efficient method to represent the infinite number of structured strings of words (e.g., sentences) that constitute natural language. Obviously, as Schonbein points out, this infinite “set cannot be represented by an infinite number of distinct, unstructured surrogates, because our onboard representational resources are limited” (8). So, for the linguistic external scaffold to have its desired unifying and edifying effects on the cognitive system, we may just need to elicit the support of a productive, systematic, parallel, inner scaffold.

It is starting to appear that Clark may have overreached and crafted too strict of a proposal with respect to language’s role in cognition. I would like to sketch an intermediate account roughly following the lock and key analogy, and similar to those proposed by Schonbein and Wheeler. This account will grant many of the insights of EEC – such as external scaffolding – while endorsing the claim that linguistic mental representations will respect and recapitulate the structure of language. Before I outline this intermediate account I will consider the empirical evidence cited by Clark in support of his thesis.

**Analysis**

In my analysis I will dissect two of the studies in which Clark argues that language forms an external scaffold for the cognitive system and, consequently, that it is inessential—if not redundant—to recapitulate this structure in the head. I will then present the results of a newer study performed by Dehaene et al. which contradicts these findings and may better support the intermediary view introduced above. Before I examine the details of the studies, perhaps a brief overview of Clark’s general argument is in order:

1. If the EEC approach to language’s role in cognitive systems is correct, then linguistic structure (i.e., syntax), as it exists in the
Given the empirical evidence provided by conceptual matching and arithmetic studies of language supporting EEC, it follows that: (i) the transformational role of language on cognition is due, by in large, to language and linguistic structure acting as an external attention-focusing scaffold, enabling the cognitive system to accomplish novel and complex tasks (e.g., long-division), and (ii) there does not appear to be a need to reorganize the internal representational systems (i.e., to train or to retool the brain), in order for cognitive systems to use linguistically structured representations to accomplish these tasks.

3. Therefore, linguistic structure can be left in the world. Essentially, there is no need to translate or reproduce the linguistic structure in the head.

Roughly outlined, we see that having the internal representational systems (often referred to as “vehicles” in the literature) adopt linguistic structure (a combinatorial and productive syntax) is anathema to Clark. Clark argues that recapitulating the structure of language in the head would be an evolutionarily expensive and demanding pursuit. After all, would it not be redundant, or at least inefficient, to have evolved to recapitulate structure that already exists as complete out in the world? For example, our brains did not evolve to map and compute the exact tension and flexion of each individual muscle fiber in our legs, thus enabling us to walk. Instead our brains rely on the structure inherent in the anatomy of our legs; merely sending a “start” signal to the muscle groups that then contract in reflexive ways (this reflex can often be seen in newborns who consistently and instinctively engage in kicking motions when placed on their back, or in paralyzed individuals who receive mild electrical stimulation in their spine). These innervated muscles then send back sensory information to the brain, precipitating a feedback-loop like process, whereby the brain modifies the signal to increase or decrease walking speed etc. (Clark 3-9). Clark’s view simply has linguistic structure mirror this example; allowing the cognitive system to use language without onboard restructuring.

Two of the studies on which Clark relies are Thompson, Oden and Boysen’s 1997 paper on conceptual cue matching ability in language-naïve chimpanzees and Dehaene et al.’s 1999 study examining the sources of mathematical thinking through neuroimaging. My goal in revisiting these studies is to demonstrate how their results actually weaken both the second half of the conditional in premise (1) and the entirety of premise (2). In effect, I will attempt to perform a modus tollens on the argument sketched out above. (For those unfamiliar with the procedure, a modus tollens is a logical proof that enables the user to deny the consequent, or conclusion, of a particular set of arguments in standard form.) Clark’s argument can be stylized as such:

1. If \( P \) (i.e., if the EEC account of language is correct), then \( Q \) (i.e., then linguistic structure is not recapitulated).
2. \( P \) (i.e., empirical studies support the EEC account of language in certain ways).
3. Therefore \( Q \) (i.e., linguistic structure is not recapitulated).

A modus tollens will first show that \( Q \) is not the case, thereby disproving \( P \). So, a sketch of my argument would be as follows:

1. If \( P \) (i.e., if the EEC account of language is correct), then \( Q \) (i.e., then linguistic structure is not recapitulated) – as discussed above.
2. But, in fact, it is not the case that \( Q \). The empirical studies discussed below fail to show that linguistic structure is not recapitulated as a prerequisite for language-use.
3. Therefore it is not the case that \( P \) (i.e., the EEC account of language is incorrect).

### Three studies

In “Language-Naïve Chimpanzees (Pan troglodytes) Judge Relations Between Relations in a Conceptual Matching-to-Sample Task,” Thompson, Oden and Boysen attempt to disprove previous conceptual matching task (CMT) research, which suggests that only language-trained (LT) chimpanzees are capable of spontaneously matching
abstract relations between novel pairs of objects. The CMT, when simplified, goes something like this: a set of artifacts exhibiting a first-order “sameness-relation” (such as two green cans, or two blue shoes) are presented to the subject. We can abstract these objects as sets of letters, e.g., AA or BB; however, it is important to note that the subjects are not shown a set of letters, rather only the aforementioned set of objects. Other objects presented to the subject could exhibit a first-order “difference-relation” (such as a yellow bottle and a green can) that we can abstract as CD or EF. The difficulty comes in play when the subjects are prompted to match groups of the pairings for sameness or difference: e.g., AA and BB as well as CD and EF would have a second-order “sameness” relation as both pairs are composed of objects of a similar first-order relation. Furthermore, AA and CD or BB and EF would be matched as different, as the instantiated first-order relation between the pairs is different; one has a first-order “sameness” while the second has a first-order difference.

The CMT literature suggests that only chimpanzees extensively trained in language and numeral acquisition, or able to put together compositional strings of symbolic tokens according to predetermined syntactical rules (a grammar), would be capable of picking up the second-order task with ease (Thompson et al. 34). Previous research understood that the chimpanzees, with their representational system now reformatted by the acquisition of linguistic structure, would quickly conceptualize the sameness or difference relations between the pairs. Indeed, the previous literature only showed two ways around the problem: You either trained the chimpanzees in language-like problem solving behavior or you performed “dogged” reinforcement; essentially, taking a language-naïve (LN) chimpanzee and subjecting it to thousands of trials and routines of reinforcement, thus training it to successfully match concrete relationships of a certain type (e.g., ½ an apple is “the same as” ½ a glass of water) (41).

Thompson, Oden and Boysen acquired one LT and four LN chimpanzees and trained them in token recognition. This is very different than comprehensive language training, as there is no syntactical or combinatorial element learned. Rather, when presented with a sameness relation, AA, they were also presented with a heart-shaped plastic token. Likewise, when presented with a difference relation, EF, they were presented with a diamond-shaped token. After token training, the subjects were then prompted to perform the second-order CMT described above. It is important to note that the tokens were not physically represented along with the pairs of objects. Still, their results demonstrated that after only a few rounds (about 32 to 64 matching exposures) four of the five subjects successfully and consistently matched these second-order relations far above what could be predicted by chance (on average above 80% correct) (37). The few rounds of exposure are substantially less than the predicted thousands of repeated exposures thought to be necessary for LN chimpanzees to master the CMT. Also of interest was the fact that three of the four LN chimpanzees performed statistically identically to the one LT chimpanzee.

The experimenters then generalized their findings to suggest that the token training, which also happens to be the foundation for more advance language training in chimpanzees, forms the lowest-common denominator between the two successful groups (42). Therefore, it is not competence with syntactical structures that predicts successful second-order conceptual matching, but rather familiarity with the arbitrary tokens which stand in place of the original first-order relations. Essentially, when presented with an AA and BB pairing, the subjects virtually tokened two heart shaped symbols, thus collapsing the size of the task at hand to the vastly simpler first-order relation. Hence, no real restructuring or reformattting of the biologically basic onboard representational systems to accommodate linguistic-like structure (i.e., syntax) is necessary for the subjects to perform the CMT.

At first glance this thought provoking study seems to support Clark’s claim that material symbols (plastic tokens in this case) serve as external prompts which focus the onboard, evolutionarily traceable, biologically basic systems of attention to salient features and patterns in the organism's environment. Furthermore, it seems apparent that the subjects in this study do not recapitulate or translate the tokens into atomic pieces which serve their functional role in a syntactically structured system; the tokens merely serve as surrogates that group features of the environment onto a new virtual space. However, it seems like a stretch to follow Clark’s conclusion that language must then leave its structure out in the world. I do not suggest that he is
pulling the wool over our eyes; however, these tokens *prima facie* do not mirror linguistic structure—*they are unstructured!* The tokens follow no grammar, no syntax, nor a compositional form with which to arrange them to express novel combinations.

I agree with the authors that this type of surrogate tokening is the lowest-common denominator necessary to perform higher order CMTs. Surrogate tokening, in one form or another, does seem to function as a prerequisite to structured language use in general. However to go as far as stating that the “present results… support the theoretical assumption that symbols are ‘in the world’ first and only later ‘in the head’” is a far leap (42). In the CMT, there are no requirements on the cognitive system to use computational, or rule-governed, manipulations of these tokens; they merely stand for a particular relationship in the world. Essentially, unlike language, the tokens lack structure. Consequently, the cognitive system does not require a structured representational system (i.e., a “lock”) in order to make use of the tokens.

In the case presented, the tokens do themselves act as an attention-focusing scaffold, by reducing the complexity of the second-order relationship. Yet, language has structure which needs to be paralleled by the onboard representational systems themselves; for without this efficient structuring the cognitive system would be flooded by an infinite quantity of unstructured tokens acting as surrogates for countless relations.

Clark uses the 1999 study by Dehaene et al. to demonstrate that research in arithmetical thought supports the EEC model of the cognitive system as efficient, non-SPA, pattern completing system (Clark 51). In their paper, Dehaene et al. use sophisticated neuroimaging techniques to try to isolate the particular neurological structures implicated in arithmetical thought. Given their results, it will become clear that this study in fact helps support an intermediary position between external and internal structuring.

Here is a rough sketch of their experimental design: Dehaene et al. first took two groups of bilingual Russian-English individuals. They trained both groups in simple arithmetic addition; however, they trained each group in a separate language. The researchers then quizzed participants in exact (e.g., “does $2+4 = 6$ or $8$”) or approximate (e.g., “does $2+4 \approx 5$ or $9$”) addition. Their results showed that in the exact addition category the participants responded statistically faster (on the order of 1000-1200ms) when queried in the language in which they were taught (“Sources” 971). The researchers go on to posit that the faster reaction time to the trained problems indicates that “each new fact was stored independently of neighboring magnitudes, perhaps as a sequence of words” (“Sources” 971). However, there was no significant difference in response time when the participants were asked approximate addition—in either the trained or untrained language. These results seem to indicate that exact arithmetical thought might be processed in more language-dependant regions of the brain, whereas approximate addition was processed in language-independent, visuo-spatial regions (“Sources” 972).

When the researchers placed the participants into MRI machines while performing the arithmetic tasks, they found that different regions of the brain showed activity when calculating exact or approximate addition. When responding to exact equations, regions of the left inferior frontal lobe were active. Previous studies have also found “left inferior frontal activation during verbal association tasks, including generating a verb associated with a noun” (“Sources” 972). On the other hand, participants performing approximate addition showed increased activity in the visuo-spatial processing circuits of the dorsal parietal pathway, near the occipital lobe. This also corresponds with previous research done in patients with severe left-hemispheric lesions who “could not decide whether $2+2$ was 3 or 4…but consistently preferred 3 over 9” (“Sources” 973). Overall, we see that their results support the notion that even basic arithmetic invokes multiple representations in several regions of the cognitive system.

The overarching conclusion reached by Dehaene et al., that even elementary arithmetic employs the use of multimodal forms of mental representation, does leave the door open for Clark and the EEC paradigm. It also lends support to the notion that the cognitive system is an adaptable, multimodal, processing machine. Furthermore, and most importantly, it is now clear that certain localized brain regions trade in structured representations. While the idea that an arithmetic symbol, for example “98,” is translated into an equivalent internal representational element might not be fully supported by Dehaene et al., we do see that there is a place in the brain where the numerals, at least in exact addition,
are engaged in a computational—perhaps combinatorial—process, recapitulated and fitted into specific language dependent representational systems which then run their course to compute a solution.Clark does not completely concede this point. He states that the work of Dehaene et al. is evidence of a “hybridized” representational vehicle that may include content-relevant internal representations along with “a co-opted proper part, a token (let’s think of it as an image, very broadly construed) of a conventional public language encoding (‘ninety-eight’)” (53). Clark seems to be slowly, cautiously, shying away from a complete externalist picture of language; yet, once you open the door to internal representations, it becomes hard to mitigate the effects they might have on the adaptive, malleable and efficient cognitive system. I believe this last study demonstrates that point succinctly.

In a newer paper, “Log or Linear? Distinct Intuitions of the Number Scale in Western and Amazonian Indigene Cultures” (2008), Dehaene et al. attempt to discover whether the linear number-line scale used in western arithmetic thought is a byproduct of an eventual biological maturation or a taught cultural phenomenon. They referenced several studies which point to young human children, infants and other non-human primates representing numerical quantities logarithmically along a number line (“Log” 1217). For example, given a one-dimensional finite line, with zero on the left and 100 on the right, western children consistently represented the smaller quantities towards the left and the larger quantities towards the right (“Log” 1217). However, their representation was disproportional, mirroring a logarithmic scale: So, for example, they often placed 10 in the middle of the line and grouped the larger numbers into a much smaller space than one would on a linear number line. These studies indicate that these children quickly adapt to the linear configuration, often phasing out the logarithmic scale by age 10 (“Log” 1219). Following this notion, Dehaene et al. decided to test how the Mundurucu Amazonian tribe, a group with a reduced numerical lexicon and little education, would format number lines.

The experiment went roughly as follows: The researchers presented 33 Mundurucu adults and children with a digitally simulated horizontal segment that had a movable cursor controlled via a mouse. The left of this line had a white circle with a single black dot present. The right side had either 10 or 100 dots present, depending on the experimental condition (either 1-10 or 1-100, respectively) (“Log” 1217-18). Each participant was then presented with either a separate display of dots numbering between the two polar quantities, a series of tones similarly quantified, a spoken Mundurucu phrase or a spoken Portuguese word (“Log” 1218). They were then asked to place the cursor approximately where they thought the indicated quantity should lie. They then compared these results with data procured from American participants with some form of formal education (“Log” 1217).

Overall, through several sophisticated measures and analyses, Dehaene et al. found that, “Logarithmic thinking persists into adulthood for the Mundurucu, even for very small numbers in the range from 1 to 10, whether presented as dots, tones, or spoken Mundurucu words” (“Log” 1219). This stands in distinct opposition to the data gathered from the American participants; Dehaene et al. cogently deduce that “In light of the performance of Amazonian adults, it is clear that the mental revolution in Western children’s number line does not result from a simple maturation process” (“Log” 1219). They then extend their data to support the idea that the concept of linearity, along with a similarly structured number line, is by in large a cultural innovation. Thus, while numerical intuition, mapping numbers onto some spatial domain, seems universal, culturally specific innovations alter this representational map, with several consequences (“Log” 1217).

Further supporting research demonstrates that there may be specific neural circuits whose responsibility it may be to act as mechanisms of numerical perception “whereby individual neurons in the parietal and prefrontal cortex [some of the most developed cortical regions] exhibit a Gaussian tuning curve on a logarithmic axis of number” (“Log”, 1219). It then appears that evolution may have selected an onboard biologically basic logarithmic scale for its overall representational efficiency; as it is capable of representing several numerical orders of magnitude in a relatively small package (Nieder and Miller 7457). Once linear number lines are introduced, it seems that a reorganization of some of the surrounding structures involved in numero-spatial representation may be in order. However, to obtain definitive proof that some onboard restructuring is taking place we would have to observe a neuronal plasticity induced by arithmetic training in vivo, in action. Yet, in light of these findings it now seems plausible to suggest that some form
of enculturation or training can reshape or reformat these biologically basic processes to display more demanding and complex forms of linearity and arithmetic. Especially when paired with the 1999 study by Dehaene et al., we can now see that there might just be some internal tacit reorganization or restructuring of the internal representational systems (i.e., the locks) according to structural (in this case, spatial) commitments carried by the internal representations (i.e., the keys) of the numerals themselves.

**Synthesis**

Given the three studies examined above, we can see how their results chip away at Clark’s stubborn refusal to grant any reformatting of a cognitive system’s internal representational systems along the lines of linguistic structure. In the first study we learn how tokened representations may very well underlie much of linguistic acquisition; however, we simultaneously see that these tokens are in-of-themselves unstructured and structurally impotent, a critical difference from the material symbols associated with language. In the second study, we find that structured (arithmetic) thought invokes a combination of multimodal representational systems (language dependent and visuo-spatial); however, we also find a particular, localized, process through which representations of material symbols enter into a linguistically structured format. Finally, in the last study we learn about a process that might epitomize how acculturation and learning might come to induce a (linguistically) structured reorganization in particular onboard representational systems underlying cognition.

Convincingly, when taken together, the results point us back to a basic premise of the EEC approach: The importance of an interplay and exchange between a cognitive system’s external environment and the malleable representational systems it harbors; systems which are constantly changing and adapting to new representations (such as the relatively recent ±50,000 years rise of language itself) in order to seek out the most efficient way to navigate and manipulate their environments.

This analysis demonstrates both the power of the external scaffold and the impressive adaptability that onboard representational systems of cognition wield. It seeks to map out an intermediary position between the wholesale linguistic structuring of thought and an all-out externalist take on language. It now seems sensible that if the cognitive system can encounter and entertain internal representations of language and material symbols that it would, perhaps through evolutionary pressures, pick up on the structure of language. On the whole, the paradigm of EEC does not contain a clause singling out any-and-all forms of onboard representational restructuring. Why wouldn’t the adaptive cognitive system pick up on the infinitely productive, compositional structure of language and mold itself to extract its inherent productivity and efficacy, thus embodying its structure? Considering the sheer length of time on an evolutionary scale this may very well have happened.

Returning to Clark’s view, we now see that his refusal to have onboard recapitulation of the structure of language is attacked on two fronts. Driven both by contemporary research in his preferred model of biologically basic cognition, i.e., artificial neural networks as showcased in Schonbein’s paper, and by data collected from contemporary scientific studies examining numeral and language use by primates and humans. Through these studies and due to the extensive work of philosophers and psychologists alike, we see that it might just be impossible to deny the transformational impact that language has on the cognitive system. However, we must give Clark his due. He may have accounted for this argument, as he cryptically leaves the potential for the blurring of the external/internal dichotomy:

From sounds in the air to inscriptions on the printed page, the material structures of language both reflect, and then systematically transform, our thinking and reasoning about the world. As a result, our cognitive relation to our own words and language (both as individuals and as a species) defies any simple logic of inner versus outer (59).

As I see it, this statement may undermine some of the claims contained in his book. It is not that Clark waffled mid-way through his work; rather he leaves the possibility open that internal restructuring may end up playing a role in this incredibly complex cognitive narrative.

Perhaps Clark is worried that dissolving this external/internal divide to include comprehensive internal restructuring will result in a linguist’s dream—and Clark’s nightmare—in which the biological elegance of cognition will be replaced piece by piece with computer-like formal language and its syntactical accomplice. Instead of putting blinder
on to the potential of internal restructuring, we should redouble our efforts towards outlining the extent of just such a process. Successful implementation of computational models, such as advanced AIs, might just hold the key to understanding which features, structures and processes we should look for in the head. Armed with this insight and information, we might be better able to direct our resources and research towards understanding those processes and features that underpin cognition. And in the end, isn’t that our goal as researchers of cognition?

Notes

Thanks to Dr. Whit Schonbein and Brian Everett for their helpful comments and suggestions.

1This positive account of internal, mental, representation is a very broad gloss of much of the philosophical literature. Perhaps the most accessible manner to envision a mental representation is to close one’s eyes and imagine a dog. Whatever happens to come up in your mind, be it a rough image of your favorite household pet or a word-tree of concepts related to “dog” (such as cats, Lassie, etc.) is an internal, mentally instantiated, representation of the concept “dog.” As you can readily see, there exists substantial room for variation and complexity.

2In this case the term “biologically basic onboard representational systems” refers to an agent’s innate information processing “hardware,” or for our case, as humans, our overall nervous system consisting of our brain and the sensory and perceptual components (eyes, ears, nerves etc.) that complement it.

3Hubert Dreyfus was one of the first such critics, suggesting that the formalized logic and symbolic representational format of AI fails to capture lived-experience, or the experience of being an actual agent in the physical world, a notion philosophers often refer to as phenomenological experience (Bechtel 62).

4Think of a child tying her shoelaces. Repeating a learned mantra (e.g., “over and under it’s easy to do/ reach through the hole and pull it through”) helps organize a behavior into manageable pieces, allowing the agent to eventually gain proficiency with the task-at-hand until they no longer have to continually recall the linguistic support-structure. Essentially, by recalling these linguistic supports, an agent self-sculpts behavior, eventually rendering the “scaffold” unnecessary.

5I am adapting and extrapolating this lock and key analogy from Hugh Clapin, who uses the analogy with regard to mental content and functional cognitive architectures.

6Schonbein develops and continues this line of thought in “The Linguistic Subversion of Mental Representation.”

7This success rate was consistently found even after controlling for the effects of variable interactions, confounding variables, differing reinforcement schedules, and potential unintentional experimenter influence (Thompson et al. 34).

8What may be an interesting next step is to see if these LN chimpanzees, once familiarized with tokens, would be able to perform computational “third-order” or “forth-order” relations. For example, if presented with two differing second-order relations: ◊&♥ and ◊&♥, then the chimpanzee would have to select, on a touch-screen perhaps, a third symbol: &, as opposed to merely identifying the third-order relation with the second-order sameness token. Likewise, when presented with ◊&◊ + ♥&♥ the chimpanzee would select: §§. The results garnered from such a study might better support the claim that cognitive systems can actually utilize material symbols without formal training or the transformation of internal representational systems.

9Recall that the subjects trained in one language had significant response related deficits when switching over into the untrained language; hence this region must be very closely tied into language-dependant structures.

Works Cited


Clark, Andy and David Chalmers. “The Extended Mind.” Analysis 58
Notes on Contributors