Mind over Media: Conscious and Unconscious Responses to Media Messages

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Dedication

In memory of Herbert and Agnes Brehe,
because I promised.

Abstract

Human response to media images is a product of both conscious and preconscious processing, involving structural mechanisms within the brain as well as individual self-concepts, issues of identity, ideological beliefs, and relevance. Visual and auditory processing incorporates both conscious and preconscious mechanisms, which influence reception and integration of incoming data. Depending upon the goals or physiological cues relevant to the subject, specific data are absorbed from the media and passed on to the higher cognitive functions in the brain. Once in the conscious mind, attitudes from the conscious and unconscious may further filter incoming data. The remaining concepts and information are used as a platform for action and response in social situations. The resulting ideological platform also informs the pre-conscious mechanisms, creating a constantly evolving cycle of relevant information filtering. Recommendations are provided for a methodological approach to media research that incorporates cognitive function, identity, and ideological platforms.

Key words: Media, processing, conscious, pre-conscious, ideology, identity, social cognition.

Table of Contents

Introduction

In our increasingly mediated world, the issue of how precisely media affects the viewer has become a topic of much interest both to academics and the general public. Since the 1990s the topic of media priming has been an area of interest to researchers in the fields of Mass Communication, Psychology, and Cognitive Science.

The major theories of Media Effects in the field of Psychology have largely been disproven, due to the overly simplistic nature of the theories. The popular theories currently used in Media Studies (Critical Theory) are extremely vague in regard to how media hails the viewer; in general, interpellation is simply stated as an event. The purpose of this thesis is to contextualize existing Media Effects and Media Studies theories within the framework of Cognitive Science. Using data on brain function in regards to media consumption, this thesis will evaluate which Media Effects and Media Studies methodologies remain valid given the scientific data available. The purpose of this thesis is to elucidate and articulate theories that previously have proven problematic in experimental situations, in order to create a theoretical platform that has both internal and external validity.

Hypothesis: Humans absorb media at a preconscious level, and depending upon the goals or physiological cues relevant to the media subject, specific data are absorbed from the media and passed on to the higher cognitive functions in the brain (the conscious mind). Once in the conscious mind, attitudes from the unconscious may further filter incoming data, and the remaining concepts and information are used as a platform for action and response in social situations. The resulting ideological platform also

informs the pre-conscious mechanisms, creating a constantly evolving cycle of relevant information filtering.

Section 1 of this text explores media as the *metonymy*, the part taken for the whole. Metonymy is a type of metaphor, in which the whole is represented in everyday communication by a portion, in much the same way that people refer to cars as "wheels". Media is a representation, a reflection of reality, and the critical perspectives on media access, input, and response will be compared and contrasted in this section.

Chapter 1 discusses the tensions between cultural grouping and media reflections of these groupings. The importance of representation, particularly in news media, as a site for agency form marginalized communities will be addressed. Chapter 2 addresses identity and image as a function of media, agency and personal commoditization of the self. The purpose of this chapter is to detail the basic sites of friction between the individual and the community, as a detailed, personal response to the tensions among the larger social spheres of cultural interaction. Chapter 3 addresses mass media from the business perspective of companies selling audiences to advertisers, and problematizes access as a needed function of agency.

Section 2 addresses the use of mass communication to affect and effect culture from the perspective of modern media production, in which the coded details of invested meaning are unpacked and discussed in relation to cognitive function. Chapter 4 discusses the development of narrative and narrative style in mass communication, and specific production methods for imbuing media with symbolic meanings. Chapter 6 provides an overview of research on media cognition regarding the visual functions of the

human brain in response to media, and Chapter 7 addresses auditory function. Chapter 8 discusses Media Effects research as a demonstration of the ways in which media consumption may materially affect interactions between people, as well as ideas and stereotypes. This chapter also includes an analysis of some of the problems in this field of research and possible solutions to address these short falls.

Section 3 operationalizes the material discussed in previous chapters. Chapter 9 provides a theoretical framework based upon the analyses conducted in this text, and includes procedural recommendations for the future study the interactions between media, individuals, and culture.

Separating culture from media is virtually impossible in an age where media informs and supports the majority of cultural interactions. As a result, it is necessary to approach the field of media study from the perspective of cultural study; and, as cultures are comprised of communities, and communities by individuals, these units of human potential are the necessary building blocks for an effective approach to media studies in any field.

Chapter 1: Theories of Culture and Media

This chapter will discuss society as a series of interconnected publics, or communities, and will frame culture as the result of the tensions between these spheres of belonging. As a result culture is neither static nor imposed, but in a continual state of striving to balance the needs of the majority against the minority, to refresh and sustain society, enriching the human experience. In this context, *power* is not a helpful term; instead, *authority* and *agency* are the key characteristics of the public spheres in contention and cooperation. Discussions of *oppression* in this context do not provide workable solutions to improving cultural attitudes towards a community, and as a result, will not be used in this thesis. This is both a pluralistic approach to culture and a multitudinal approach, as will be discussed in Chapter 2.

Culture, as defined by Raymond Williams, is the "study of relationships between elements in a whole way of life"[1] This chapter summarizes culture as a constantly shifting relationship between social elements. This argument will establish the key units within culture as a series of communities, or social spheres, comprised of individuals sharing collective identities across one or more ideas, commonalities, or desires.

As newer social groupings strive within culture for recognition and a share in the social sphere, the tensions between these social spheres become sites of both resistance and negotiation, as the cultural units interact with each other. These tensions and negotiations may themselves comprise the ultimate basis for culture, as the shifting perspectives and values of society as a whole alter to accept new ideas and

[1] Williams, Raymond. *The Long Revolution.* Penguin. 1965.

commonalities, and reject those that are considered outdated or no longer applicable to society as a whole.

Hall writes that humans seek to naturalize conceptions of the self through the reproduction of personal ideas and values in those around them.[2] Media has been a key form of cultural sharing within the modern age, establishing social priorities through news media and social ideologies, and establishing practice through news, entertainment media, and the Internet.

Marshall McLuhan has theorized that media functions as prosthetic extensions of the human senses: our ability to see, to hear, even to speak, is extended and strengthened by media.[3] In an environment where the secondary message within media messages may restrict a community's participation in mass society, marginalized (or emergent) communities may be blocked from receiving and participating equitably in the full value of this prosthetic extension. In many cases, entire communities may also be blocked from equitable participation in larger community groupings, such as politics, business, education, and the marketplace.

1.1 Ideology and hegemony

Ideology, literally, is the method of idea transference in culture. In usage, ideology generally refers to large ideas either affecting or shared by publics of size or authority, such as politics. Antonio Gramsci distinguishes between two types of ideology,

[2] Hall, Stuart. "Encoding/decoding". *Culture, Media, Language.* Eds. Stuart Hall, Dorothy Hobson, Andrew Love, and Paul Willis. London: Hutchinson, 1980, 132.
[3] McLuhan, Marshall. "The media is the message". *Understanding Media: The Extensions of Man*. New York: Signet, 1964, 29.

those ideologies that are related to the structure and function of society, and are therefore necessary to maintain that structure and function, and those ideologies that are willed by members of the populace.[4] As social structure is in a constant state of flux, adjusting to new ideas and emergent communities coalescing in response to structural ideologies, and ideologies themselves adapt and change with the changing identities of the self, community, and society, the concept of hegemony, as a ruling ideology superseding all other ideologies, becomes difficult to justify.

If ideology "never quite fits" and hegemony is in a constant state of flux, then the basic unit of cultural tension is clearly ideology itself; any overarching ideology would itself be a product of the tensions between social spheres.[5] As a concept bounding ideology, hegemony would be subject to pressures from each and every ideology present in a society, and would, in effect, be too mobile to quantify effectively. The argument presented herein is that hegemony is constituted by the *meeting point* of multiple ideologies, those ideas and factors that are generally accepted within a society, reinforcing and supporting each other. As ideologies are constructed by differing social groupings, altering hegemony is a difficult and time consuming goal. Each separate group ideology, which contributes to the overarching hegemonic position, must be reframed through social interaction and negotiation in order for hegemony to change through the consensus of dominant ideologies. This is the basis for social change that must be addressed by marginalized and emergent social groupings.

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[4] Gramsci, Antonio. "The concept of 'ideology'". *Selections from the Prison Notebooks of Antonio Gramsci.* Eds. Quintin Hoare and Geoffrey Nowell Smith. New York: International Publishers, 1971, 59.
[5] Hall, 136.

Media, in relation to social mechanisms, is a primary source of knowledge about the public sphere, comprised of a multiplicity of social spheres. News broadcasts and newspapers prioritize social events and ideas and communicate these ideas to the wider public. Entertainment media disperses those ideologies that have been accepted to the degree that they are considered to be a standard unit of cultural knowledge.

Stuart Hall states that once a discursive message has been broadcast, "[T]he discourse must then be translated- transformed, again- into social practices if the circuit is to be both completed and effective. If no 'meaning' is taken, there can be no 'consumption'. If the meaning is not articulated into practice, it has no effect." [6] Therefore, producers of media messages seek to effect not only reception, but also enaction of the broadcast message in the shared, physical world. Hall adds, in regards to decoding errors such as oppositional readings, which the main issue facing production professionals is "that the audience has failed to take the meaning as they- the broadcasters- intended".[7]

Hall explains that the manner in which meanings are transferred through media complies with a 'dominant hegemonic position,'" and he has earlier stated "we say 'dominant' because there exists a pattern of preferred readings".[8] Thus, media producers are informed by cultural ideology in that the message created must comply in some degree with established societal norms, as it is a result of these norms. Therefore, the needs and ideals of marginalized or emergent communities will only rarely be a part of these messages. Media messages strive to provide information to audiences that is

[6] Hall, 164.
[7] Hall, 168.
[8] Hall, 170.

unlikely to alienate the audience. As a result, new ideas, sources of conflict between prevailing ideologies and existing cultural structures, are less likely to be treated seriously in the media. Particularly in entertainment media, producers will feel a need to include new social trends, but to frame these trends in a manner that will not threaten the status quo. This is the source of the frequently employed narrative device of displaying stereotyped members of marginalized or emergent communities as comedic, as villainous, as impotent.[9]

News media has a more difficult job in addressing emergent and marginalized communities. Reporting must occur, as news stations will lose relevance if new social trends are not presented to audiences. However, the modern media conglomerate environment has created a significant power differential in the ideologies disseminated through news channels.

Modern media informs public perception of politicians, owner generated agenda setting and framing is becoming the norm within our local and national news broadcasts, and even journalistic ethics have been compromised by a reliance on public relation statements generated by story subjects due to staff reductions in profit-driven newsrooms. Media messages, generated through technologically skilled media producers, at channel owner's request, spread both PR messages from financial elites and the messages desired by the owners, providing Gramsci's "intellectual and moral leadership" to the public.[10]

Marginalized communities, named "subaltern social groups" by Gramsci, are formed through "developments and transformations occurring within the sphere of

[9] Althusser, Louis. "Ideology and Ideological State Apparatuses (notes toward an investigation)". *Lenin and Philosophy and Other Essays.* Translated by Ben Brewster. London: Monthly Review Press. 1971, 142.
[10] Gramsci, 58.

economic production".[11] Hall has stated previously "subaltern classes, by definition, are not unified, and cannot unite until they are able to become a 'State'".[12] This unification is effected through cultural representation of a community as a significant portion of society; as the community becomes more visible, it becomes less strange, exposure to the ideologies preferred by the emergent culture increases, and over time the wider social sphere is balanced by incorporating the newer ideas and practices in to the cultural whole.

In a profit driven news media environment (differentiated from the historical small-outlet news media ideology of providing information as a form of social capital) audiences are valued for their desirability to advertisers, as a source of profit to the channel, rather than as members of the community the channel serves.[13] As a result, news media has little motivation to include marginalized or emergent communities in an equitable manner, and entertainment media follows suit, as channel owners choose which entertainment programs to air based upon the program's appeal to the channel's target audience.

Entertainment media likewise is bound by the need to serve the "majority" audience, as producers are required to aim their vehicles to capture those audiences that are most likely to appeal to advertisers and channel owners. Media owners prefer audience demographics that increase the profitability of their asset, and advertisers will generally prefer audiences with disposable income. Financially secure audiences are likely to be at ease with the current cultural and social state, resulting in a loop that

[11] Ibid, 57.
[12] Ibid.
[13] Sullivan, Daniel. "Business service model promotes better newspapers." *Newspaper Research Journal.* Vol 27, No. 4. Fall 2006, 66-75.

disregards the construction of social change in preference for the traditional business more of watching the bottom line.

This bias towards the profitable audience over the community as an entity results in dismissive treatment of marginalized or emergent groups through negative characterization and ridicule in media, and may be enacted through a dismissal or stereotyping of group members by the general populace. As Gramsci contends, in regards to media, "precisely material forces are the content and ideologies are the form", and members of subaltern groups are interpellated, inundated, with messages regarding the proper economic and societal "place" for members of the group, and societal norms, comprised of interpellated members of other groups, acting materially upon accepted ideology reinforce this concept.[14]

As interpellation requires that the subject recognize that they themselves are being hailed as concrete and specific individuals, interpellated ideologies appear to be both accepted and obvious- the "Other" always refers to "them", and never to "us", perhaps due to Althusser's concept of misrecognition.[15] Thus the marginalized or emergent, oppressed economically and socially, and discarded by media, are maintained as a variety of subaltern groups, unable to unite due to an inability to create a conjoined sense of unity, and a wider sense of the community in the eyes of society.

Marginalized and emergent communities then, are likely to be those social groupings of individuals who lack the economic wherewithal to be viewed as desirable by advertisers. This is a non-traditional interpretation of *marginalized*, but in the current

[14] Gramsci, 59.
[15] Althusser, 148.

media environment in which audience research, the delineation of target demographics, and the marketing of both media and commodities funds both entertainment and news media, the definition is justified.

1.2 Culture and subculture

As subculture is accepted into culture, it becomes normative, and therefore is no longer in tension with the larger cultural groupings. Ideological acceptance may not be a factor in this scenario- instead there may be a reduction of the symbolic representations of the subculture into fashion, entertainment, or caricature.

Culture is the relation between social spheres, with each sphere seeking to promote the agency of their group or groupings within society as a whole. Michel Foucault states that "where there is power there is resistance…and yet, or perhaps consequently, this resistance is never in a position of exteriority in relation to power."[16]

Traditionally, in critical theory, *power* has been addressed as an immutable and unchanging force. However, the theory that power does not change is problematic; clearly, power relations around the world have altered throughout human history. Reframing power as *agency* reduces the problematic nature of this discourse, and illuminates the theories of power dynamics. *Agency* is defined by Ahearn as a "socioculturally mediated ability to act" in cohesion with O'Hara's definition of *agency* as "a matter of plurality, mobility and conflict."[17,18] In order for marginalized or emergent

[16] Foucault, Michel. *The History of Sexuality: Volume 1.* New York: Pantheon. 1978, 95.
[17] Ahearn, L.M. "Language and Agency." *Annual Review of Anthropology.* Vol 30, 2001, 116.
[18] O'Hara, D.T. *Radical Parody: American Parody and Critical Agency After Foucault.* New York: Columbia University Press. 1992, 66.

social groupings to obtain agency, these groupings must first form a community, recognizable to each other. By creating a platform of unity, the social grouping then becomes visible culturally, and is able to leverage attention both as a visible group within the public sphere and through representations in cultural products such as art, theater, film, etc.

Acceptance into dominant cultural groupings is a long and painstaking process. Initially the emergent group will need to obtain sufficient agency to use mass media to disseminate the group ideology. This has tended to produce a reflexive backlash from existing ideological vehicles in the form of caricature, parody, and satire directed at the individuals and ideologies representing the emergent social grouping. Examples include vaudevillian performers appearing in blackface, gay men as the comedic element in sitcoms, and the recent commentary on the Tea Party centering on Michelle Bachman.

Representation within the larger society may become acceptable without altering established ideological positions. Hebdige cites the punk movement as a form of subculture that fizzled. The movement itself was intended to challenge hegemonic positions on class, dress, language usage and social function, but as the social group became increasingly visible, so too did the backlash from established social groupings.[19] As the moral panic faded, the framing of the punk movement transitioned from "deviant" to "kids dressing up", and then began to be commoditized as fashion trends as the wider populace began to experiment with fashion choices originating in the punk repertoire.[20] This process did not lead to significant change in the hegemonic position, or even in

[19] Hebdige, Dick. "Subculture: the unnatural break." *Subculture: The Meaning of Style.* New York and London: Routledge. 1979, 91.
[20] Hebdige, 92, 93.

ideological stances. The movement died out without achieving more than a stylistic influence upon society, most notably in music and fashion.

Hebdige classifies this as "recuperation", a process through which the ideological perspectives accept the subculture symbolically but not ideologically.[21] Effectively the differences in the social grouping are accepted as aesthetic changes to appearance and art, but have little or no effect upon the existing social order. This is the trap that marginalized and emergent social groups desperately wish to avoid.

1.3 The transformation of culture

Since the 1700's print media has been the primary purveyor of "society" spreading reportage of local events across wide areas and disparate people, homogenizing the shared concept of reality. Effectively, print media in the form of leaflets, books, newspapers and magazines have become the social and cultural arbitrators of societal thought, carrying perspective, imbedded ideology, and the opinions of the few across large tracts of the human populace. This construction of identity is strengthened by the advent of film, television and radio in the early 20th century, adding a strong element of commodification to the cultural concept through advertising, press releases, and "society" pages featuring the wealthiest among us, and selling above all else the need to consume more media. This consumption in turn spurs the need to conform the ideals of the id to the external ideals of the media, superimposed upon the conscious mind by obtained knowledge and desires from mediated messages, instilling a need to comply with the

[21] Ibid, 94.

"monopoly of appearances" in thought, word and deed: consumption habits, both mediated and commoditized.[22]

The societal monopoly held by media vehicles is, much to the alarm of traditional media sources, slowly being broken down through the advent of digital media. The subjects of media attention have been framed by the media as individuals of supreme importance to society as a whole, and media creators have framed themselves as gatekeepers of information, ideas, and fame. With widespread access to the Internet, digital media production devices and software, and the ability to distribute digital messages for little or no cost, the populace is seizing the opportunity to create media in which the individual is made the star, the arbiter of opinion, and the gatekeeper of information.

The primary communities in which the individual participates are a significant site of influence upon the individual's subconscious framing of self. Participating in community activities online has many benefits: Knowledge becomes free, and the uses to which the knowledge is put flourish. Yet the results of niche formulation in digital media is not an increasing polarity of ideas, but instead an increasing tolerance as more people are exposed to differing ideas, beliefs and cultures. In television, print, even film, disparity of ideas causes conflict and friction. However, the Internet is not limited in the space or time that can be provided to participants. It is not necessary to prove ones' self "right" in order to gain a platform from which to be heard. Instead, the Internet allows each individual to speak their piece at length and in their own time. Responders are given

[22] Debord, Guy. "The commodity as spectacle" *Society of the Spectacle.* Detroit: Black & Red Books. 1977. Revised, Para 12.

the same benefit, and are often replied to in turn by the originator of the post. Via the Internet, the process of exerting one's own control upon the digital environment becomes a *dialogue* rather than the informational dictatorship of previous forms of media.

Digital forms of cultural exchange, however, are ephemeral, unlike the *artifacts* of traditional media. *Artifacts* are units of media such as newspapers and magazines that have a physical form, and film, video and television, which are preserved in physical form, and disseminated. The value of artifactual media lies in the record produced by these communications, which are available for study and analysis long after their original creations. Communications via the Internet, however, frequently have a discrete lifespan, disappearing as pages or sites are updated. As a result, communications via digital media do not have the representative benefits in the long term for social groups and society as a whole. An additional issue with Internet communication is that of agency. While expression is facilitated, being heard is more problematic, due in part to the plurality of ideas available. Artifactual media still provide the greatest chance of disseminating voice to mass audiences, and are therefore are key sites of representation in today's society.

1.4 The commodification of culture

In a culture based upon purchasing power, marginalized or emergent communities are those who lack the fame and fortune to obtain a platform for their issues. As they are not included in the Spectacle, they are not included in the mass perception of key issues, and are not included in society's mental representation of culture.

Modern culture is centered on a series of industries that largely do not

produce anything of intrinsic material value in the Marxist sense (such as food, clothing, shelter), and where intrinsic value *is* present it is similar, if not identical, in function to less expensive, more readily available items.[23] Celebrity, entertainment, modern "news", fashion, and electronic toys are the main indicators in today's world of status within society; the degree to which one owns or knows about the latest occurrence in the media world, the more culturally "informed" one is by modern standards. Twenty years ago, people did not discuss last night's television viewing with the fervor that today's audiences express. Television programs such as *Friends, Heroes, American Idol*, and the newest YouTube clip are the foundations for a significant portion of public interaction, as well as informing private communication and interaction.

In the essay *The Commodity of Spectacle* author Guy Debord discusses the audience's acceptance of Spectacle as reality, a false perspective, and the cultural transposition of this assumed reality onto everyday life, or "lived reality".[24] The Spectacle, in Debord's work, refers to the media representation of the world, not supplemental to the world, but a product, a model of the dominant social reality, and a justification of that reality.[25] The Spectacle "is the omnipresent affirmation of the choice *already made* in production and its corollary consumption….it occupies the main part of the time lived outside of modern production."[26]

Paolo Friere's work concentrates on societal oppression and education through literacy of in Third World countries. However, Friere's use of this specific area of study

[23] Benjamin, Walter. "The work of art in the age of mechanical reproduction". *Illuminations.* New York: Schocken Books. 1969, 217.
[24] Debord, Paras 1-42.
[25] Debord, Paras 4-8.
[26] Ibid.

to discuss dynamics of oppression relate to the world population, including those societies that may not consider themselves to be oppressed in the traditional sense, such as the modern consumer society. Friere stipulates that *adhesion*, as a form of identification of the marginalized with those who have marginalized them, is a key element to the survival of power dynamics within society[27]. It is this acceptance of the societal role delineated by ideological elites that inhibits social progress, particularly in relation to actions that support existing negative stereotypes.

Modern media campaigns target teenage audiences, increasingly. This is seen in the market placement of products within "entertainment" as well as the more overt advertisements. Targeting younger audiences, who have not yet learned that credit cards equal real money in the future, and instilling the concept that only through consumption can one engage in "real" society, creates a population base that will buy, and buy, and buy more in the future. Economic subjugation is created by instilling the need to buy in place of the human need to be a part of society as a whole. The population works to obtain money in order to purchase commodities, not to live a full life; or rather, living a "full life" has become synonymous with one's purchasing ability.

1.5 Interpellation

Althusser states that *interpellation* is based upon identity, as media must speak to a facet of the individual's identity in order for the hail to be perceived. *Interpellation* is the 'hailing' of the subject, in which the subject recognizes that they are themselves the

[27] Friere, Paolo. *Pedagogy of the Oppressed.* English translation, 30th anniversary edition. New York and London: Continuum. 2006, 45-46.

subject of the hail, and respond by focusing attention upon the media channel.[28] Interpellation is both a conscious and unconscious mechanism. We do not always think about the ad, message or media as being aimed directly at us, as "always already subjects", but often respond on an instinctual level to the hail.[29] Marketing and audience analysis is based upon the effectiveness of media interpellation; a process that provides the media producers with the ability to strengthen the interpellation of the target audience by crafting messages and the media itself to conform to the ideologies of the intended subject.

Representation of the intended subject as ideologically superior to other segments of the population (at least in relation to that channel) strengthens the interpellative bond, as audience members will accept, partially accept, or discard messages received, depending upon whether the message agrees, partially agrees, of conflicts with personal ideology. As media channels have homogenized content to appeal to larger more diffuse audiences, interpellative cues have focused on common traits within the markets that are viewed as most desirable to advertisers. These groups are largely the white, middle or upper-middle classes: those with disposable income and members of the perceived "mainstream" culture. This leaves a significant portion of the American populace with either no interpellational attachment, or a negative interpellational attachment as messages are targeted to a perceptual "not you", or to a perceptual "you, but negatively" as in the case of marginalized or emergent communities' representation in news stories, where criminal activity becomes the prime topic in which minorities are presented.

[28] Althusser, 75-76.
[29] Ibid.

The visual representation of marginalized or emergent cultures and viewpoints is rarely maintained by the visual representation of the anchors or reporters in news media. This exacerbates the lack of unbiased representation in the news messages. In failing to visually, verbally, or ideologically represent communities differing from the perceived "mainstream" demographic, the position of marginalized or emergent groupings is reduced.

Paolo Friere posits the effect of *adhesion*, whereby marginalized and emergent groupings of people are forced to adapt both behavior and perception to agreement with dominant ideologies in order to maintain a psychological sense of belonging within the dominant culture.[30] Adhesion is the psychological function that produces criminals in marginalized or emergent communities who state that they had no choice, that it was what members of their community "do". This adhesion to the news media message that, for instance, members of minority populations are either criminals or victims of crimes reduces the culturally acceptable choices from a normal range of options to the mediated ideology choice: victim or criminal. By reducing the representation of marginalized or emergent communities, media channels also reduce the manner in which the interpellated audience views members of these communities, and perhaps more damaging, the way in which marginalized or emergent community members view both themselves and their community.

Althusser argues that Ideological State Apparatuses (ISAs) are ultimately controlled by the ideology of the ruling class, who also dictate the ideologies transferred

[30] Friere, 45-46.

to the public at large by the outlets of communications media, school, family, the arts, religious groups, among others.

1.6 Stereotyping

Walter Lippman created the concept of stereotyping, which he considered to be a form of cognitive shortcut utilized by humans to reduce the amount of mental processing needed when in social situations.[31] Stereotyping and the associated behaviors of stereotyping are not necessarily negative; take for instance the interaction of an individual in a hospital or doctor's office. People in white coats are treated with a significant degree of respect, are automatically assigned a specific title that is not traditional usage when addressing the majority of the public, and assigned a great deal of trust. Members of the public tend to have a strong belief in the confidentiality of interactions with these individuals.

Stereotyping consists of a cognitive link between physical characteristics and coded behaviors that are linked associatively to the perception of certain characteristics. These behaviors may pertain to the expected behavior of the individual as a member of a subgroup, as well as to the behaviors that are perceived to be appropriate when interacting with a member of the subgroup.

Increasingly, all areas of life are subsumed within mediated reality. Althusser's ISAs are listed as school, church, family, professional institutions, and any organization

[31] Lippmann, W. (1991). *Public opinion.* New Brunswick, NJ: Transaction Publishers (Original work published 1922), 81.

that a member of society may join.[32] In a mediated environment where audience loyalty is considered valuable, the current media ideology reflects the belief that only *certain* audiences are of value, and therefore deserve consistent positive presentation and representation in the news. The ability of news media to construct strong and cohesive consumer communities is effectively blocked by this bias, as is participation in the mass media by marginalized or emergent communities, resulting in the "monoculture of the mind", as Vandana Shiva describes it.[33]

Sadly, an inability to participate in an equitable manner in media also reflects upon the society as a whole. As media representation interpellates the audience, that interpellation shapes the views of consumers in daily life. Looking around, are media subjects made aware and uncomfortable by the lack of adequate subgroup representation within a social or work space? Do media subjects consciously realize that marginalized or emergent community representation is lacking? Is it merely normal, comfortable, reflecting the reality read about and seen in media? Conversely, in situations where a member of the media's "mainstream" audience finds themselves a minority in any given situation, does that "mainstream" individual find themselves self-conscious, uncomfortable, or simply confused when relegated to the unfamiliar and ineffective position of minority?

[32] Althusser, 168.
[33] Quoted by Keane, John. "Journalism and democracy across borders." *The Press.* Eds. Geneva Overholser and Kathleen Hall Jamieson. Oxford: University Press. 2005, 96.

1.7 Marginalization

Increasingly, mediated members of minority groups are able to gain acceptance through representation in the media. It is doubtful, however, that the recognition of the individual will translate to the marginalized or emergent community as a whole. For example, while celebrities such as Oprah Winfrey, Denzel Washington, Jamie Foxx, etc. may receive recognition as performers and celebrities, this is more a function of fame and wealth than it is a transformation of attitudes towards the Black community.

For example, the rhetoric of "welfare mothers" tends to revolve around the imagery of young Black women bearing children out of wedlock in order to receive a "free ride" courtesy of the government. In reality, statistics from the U.S. Department of Health and Human Services indicate that Caucasians form about 39% of welfare recipients, while members of the Black community constitute 37% of welfare recipients, Hispanics 18%, Asians 3%, and other minorities 3% of welfare recipients. The average welfare recipient has one child (43%, two children: 30%, three children: 16%, and four or more: 10%) and 19% of recipients stay on welfare less than seven months. An additional 15% stay on welfare for 7-12 months, 19% for one to two years, 27% two to five years, and 20% are on welfare for over five years. With roughly 80% of welfare recipients moving from using welfare to weather times of crisis into the workforce, and the majority of recipients with only one child in the family, this is clearly a false stereotype.[34]

Marginalization is not necessarily a function of heritage (physical characteristics), but is a function of the social groupings in which a person may find themselves. For

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[34] U.S. Department of Health and Human Services, *Characteristics and Financial Condition of AFDC Recipients, Fiscal Year 1992*. Washington, D.C.: Government Printing Office. 1994, 47.

example, even in light of the statistics cited above, the description of Caucasians as marginalized appears ludicrous. However, in this case the marginalization is not of racial groups, but of an economic group: welfare recipients. Welfare recipients depend upon income from the government to make ends meets, and divisive or dismissive summations of the actual components of who make up the welfare demographic may affect welfare policies. Section 8.1 discusses this phenomenon in more detail.

Research demonstrates that while most people in the United States perceive themselves as members of the middle class, this may not actually be the case. According to Pew Research, 21% of Americans identify as upper class, 53% as middle class, and only 25% as lower class, in terms of income. The statistical breakdown via racial characteristics indicates that race is not a factor in this identification, as the statistics for self-identification are in the 50-54% range across racial demographics. However, these personal estimates of income class are not based upon equivalent incomes; minorities base their decision upon lower earnings than Caucasians.[35]

Do minority community members who identify as middle class constitute a marginalized community? In a society driven by market considerations, this may be the case, as disposable income is a basis for cultural participation as well as cultural representation. The difference in earning is not limited to visible minorities: a considerable body of research has been conducted on the earnings of gay men in contrast to straight men, and has unilaterally found that gay men earn less than their heterosexual counterparts do. This research runs counter to the popular catch phrase in the 1990's

[35] Pew Research Center. *Inside the Middle Class: Good times hit the Bad Life.* Pew Social Trends, April 9 2008.

indicating that gay men had more disposable income than straight men due to a lack of children in the household. Conversely, lesbians tend to earn higher incomes than straight women do, perhaps as a result of a tendency to regender Queer-oriented women as male, due to a higher value placed upon these individuals through fantasy associations with girl-on-girl sex, or due to a willingness on the part of the women in question to request higher pay.

The purpose of this discussion is to elucidate the manner in which marginalization may be accomplished by social groups with established ideologies. By dismissing social issues as referring to those who are attempting to take advantage of the majority through pleading poverty (in the case of welfare), or who are pleading discrimination when they are perceived to be better off than the majority (in the case of disposable income levels), established social groups are able to relieve ideological pressure exerted upon them by minority ideological groups.

Another factor in marginalization is the question of why individuals identify with groups to which they quantitatively may not belong, but which are deemed as socially desirable. The argument can be made that the identification is a reflection of self-perception. The argument may also be made that the self-identification is not identification *with*, but identification *against* inclusion in a certain social group, a form of marginalization against a social group effected by the marginalized themselves.

1.8 Relations between culture and identity

As identity informs cultural participation, so too does culture provide the niches with which to identify. There is a constant tension, and often a friction between cultural representation and individual identity. As a result, culture is shaped by identities that achieve sufficient agency to become visible within the culture.

Human society has always sorted itself into a society based upon rank, whether financial, political, or skill-based. When the Founding Fathers of this country wrote the constitution, they based the constitution upon the concept that all men are created equal; meaning man, not woman, and white man, not the supposedly "lesser" races. This "equality" is nothing of the sort. As a child's parents will have greater or fewer opportunities to obtain an education, financial resources, and retain their mental and physical health, so too will the child have greater or fewer opportunities in the world. In theory, our "democratic" society is constructed to facilitate opportunities for those with less to garner more. In fact, it is a function of the human hierarchical society that all people will attempt to gain more of whatever resource is of greatest value to them regardless of how much of that resource they are already in possession of.

Chapter 2: Identity

The concept of identity is multi-dimensional and difficult to define in all of its facets and attributes. The social sciences and critical theory define identity multiply, and only a few definitions will be treated in this chapter due to length considerations. This concept is problemetized by the manner in which the individual may alter the salience of personal identity characteristics in order to meet the needs of the moment, making any study of identity (and unpacking the concept) difficult due to the myriad influences upon an individual at any given moment.

2.1 Identity

Freud theorized that there are three levels of thought available to humans: the *conscious*, the *pre-conscious*, and the *unconscious*. Each level of thought is analogous, in Freud's theories, to a level of self-identification: Conscious thought and perception form the *id*, the awareness of self. Pre-conscious thought, memories and knowledge, form the *ego*, the function that allows the id to place itself in the wider world, effectively framing the identity. The unconscious is the *super-ego*, the storehouse of societal concepts, irrational desires, shame and selfishness, all of the ideas that the individual must struggle with as those issues come into conflict with the desires of the id.[36]

Lacan theorizes that identity is first assumed by the individual when, as a young child, the subject looks into a mirror and recognizes that the image that she or he sees is of the self. Before this action, the self is purely subjective, existing as a point of view, a

[36] Freud, Sigmund. *Sigmund Freud, an introduction: a presentation of his theory.* Ed. Walter Hollitscher. London: Routledge 1970, 72.

locus for desire (food, warmth, love), a purely desire driven existence, free of inter-relational inhibitions, without self-consciousness. Upon recognizing that the self is seen by others and exists within an environment in which judgments can be made about the self, the physical presentation of the individual, the body, the need to begin integrating one's own behavior into a newly perceived set of social constructions takes root.[37]

Identity, the recognition and expression of selfhood, is theorized by Roy F. Baumeister to be the result of three specific psychological functions: *reflexive consciousness, interpersonal membership,* and the *executive function*. In Baumeister's paradigm, *reflexive consciousness* (akin to Freud's id) is created by the awareness of self, (i.e.: "I exist") and the perceived perception of self by others. *Interpersonal membership* is a locus of influence upon the self in terms of ideologies, thought processes, values, and group memberships; in short, the function by which the self is identified in comparison to others (analogous to Freud's super-ego). The *executive function* is the nexus of volitional control, the site of conscious choice, action, the ability to influence the self, others, and the physical world (analogous to Freud's concept of ego). This is the site of the formation of the ability to present one's self in a manner consistent with the individual's desires and to influence the environment to meet the individual's needs.[38]

Following the realization of self as a physical entity, separate from the surrounding environment, and subject to the perception (gaze) of other individuals, it is theorized that the individual begins to perceive the need for negotiation between the

[37] Lacan, Jaques. "The Mirror Stage". *Ecrits: A Selection.* London: Routledge, 1989, 1-8.
[38] Baumeister, Roy F. "Ego Depletion and the Self's Executive Function". *Self & Identity*. Vol. 1 No. 2. 2002, 129-136.

desires or needs of the self, and the desires or needs of others.[39] This realization takes place in the context of realizing one is an individual, a separate entity, existing dependently within an environment, then others are also individuals, and exist interdependently within the same environment. This realization may be limited to the family during early childhood, but with further social experience, the circle of recognized individuals grows, and eventually begins to encompass people whom one has not physically encountered.

Simply put, identity is the individual's reflexive perception of the physical, emotional, and intellectual self, which may be filtered to present the most positive aspects of self in public arenas in order to best control the situation and meet the needs of the individual.

2.2 Identity and Culture

Freud's theories frame the id as the smallest portion of the mind, roughly 10 percent of the total mental capacity. The pre-conscious portion of the mind is estimated at 10-15% and the unconscious is estimated at 75-80% of the total mental capacity.[40] This framing of human mental capacities demonstrates the significant weight given to societal pressures, expectations, and unwritten rules that the individual absorbs and interacts with throughout life.

Uses and gratification theory argues that media consumption is guided by five

[39] Mulvey, Laura. "Visual pleasure and narrative cinema." *Sexual Subject: A Screen reader in Sexuality.* New York and London: Routledge. 1992, 26.

[40] Pryor, J. B.; Whalen, N. J. "A typology of sexual harassment: Characteristics of harassers and the social circumstances under which sexual harassment occurs." *Sexual harassment: Theory, research, and treatment.* Ed. W. O'Donohue. Needham Heights, MA: Allyn & Bacon. 1997, 129–151.

major categories of need: *cognitive, affective, personal integrative, social integrative,* and *tension release* needs. *Cognitive* needs refer to the individual's need to obtain information about the world around them. *Affective* needs fulfill the individual's need to feel emotion, or to have the emotion that she or he is feeling be validated through the media, as other users share their stories and emotional states. *Personal integrative* needs are the individual's need to perceive themselves and their community as having a place within the mass culture, and refer to the need both for the individual to feel that they have obtained a degree of social status through consumption and credibility as a community member through shared consumption. This need may also reflect a need to view community members represented in media in order for the individual to feel that key characteristics of the community group are accepted into the mainstream cultural purview. *Social integrative* needs refer to the ability to share media consumption, and therefore a degree of commonality with social contacts, such as family and friends. *Tension release* needs refer to the need of the individual to obtain emotional catharsis, diversion from troubling personal issues, and the escapism of entertainment.[41]

As minority populations are either ignored or negatively represented in mainstream media, these needs can only be fulfilled through searching out non-mainstream sources of information and entertainment that will meet the needs of community members. Unfortunately, these sources may not fulfill the needs of community members to see themselves as integrated into society, and may leave them feeling isolated, invisible, and unable to achieve parity within the larger social sphere.

[41] Severin, W.J. and J.W. Tankard. *Communication Theories: Origins, Methods, and Uses in the Mass Media.* 4th ed. New York: Longman. 1997, 197-214.

Terror management theory (TMT) suggests that humans, aware of the possibility of death, invest emotionally and intellectually in a cultural concept that validates the individual's existence and lends meaning to her or his life. Cultural concepts are most readily accessed through collective narratives generated by social groupings.[42] Such groupings may include ethnic groups, work place associations or professional affiliations (e.g., coworkers, union membership, or professional association), educational groupings (e.g., the specific school one attends, level of education achieved), political/ideological groups (e.g., church, Republican/Democrat, conservative/liberal), and hobbies or activities (e.g., participation in sports, support of professional sporting teams, museum membership), gender, and increasingly, media consumption, utilizing the social networking opportunities available through digital media.

It is theorized that participation in these social groups allow the individual to accentuate positive aspects of their concept of selfhood, and down-play perceived negative characteristics, allowing the individual to make use of cultural identity in order to stave off anxiety and stress caused by the fear of death.[43] The cultural groupings posited by Arndt et al are analogous to Louis Althusser's critical theory concept of Ideological State Apparatuses, the mechanisms through which cultural ideologies are transmitted, and the foci of Freud's concept of the super-ego.[44] Cultural identities are needed in order to stave off existential terror, in order to align oneself with a group of individuals; the subject must begin by evaluating personal values and desires in order to

[42] Arndt, Jamie, Jeff Greenberg, Tom Pyszczynki, Jeff Schimel, and Shelden Solomon. "To Belong or Not to Belong, That is the Question: Terror Management and Identification with Gender and Ethnicity." *Journal of Personality and Social Psychology*. Vol 83, No. 1. 2002: 26-43, 26.
[43] Arndt et. al 2002, 27.
[44] Althusser, 173.

find a group or groups that match well with the needs of the individuals' self-conceptualization.

Managing the conflict between individual and collective desires centers around the need for control: *self-control, environmental control*, and *influence* upon others.[45] *Self-control* is the individual's ability to present the self in a manner that is gratifying to the individual. *Environmental control* is necessary for survival, comfort and attaining personal goals, which are set through the mechanism of self-control as it pertains to the executive function and self-reflexive goal setting. The ability to *influence* others is both an aspect of environmental control, in managing the people in one's immediate proximity, and of self-control, as influence upon others can effectively facilitate the achievement of those goals set forth by the executive function. Personality is theorized to be the outward presentation of the executive function, the manner in which the individual negotiates personal identity with public and social identities, hiding some aspects and displaying others. This is a process that alters over time in response to personal growth, goal achievement, and negotiations between the needs of the self and the needs of others.[46]

[45] Adams, Gerald R. Kitty G Abraham and Carol Anne Markstrom. "The Relations Among Identity Development, Self-Consciousness, and Self-Focusing During Late and Middle Adolescence." *Developmental Psychology*. Vol. 23, No. 2. 1987, 292.

[46] Ashmore, Richard D., Kay Deaux, and Tracy McLaughlin-Volpe. "An Organizing Framework for Collective Identity: Articulation and Significance of Multidimensionality." *Psychological Bulletin*. Vol. 130, No. 1, 2004, 80-83.

2.3 Identifying through media

The Internet creates a space where individual identity is created by the individual without interference from the preconceptions of others. Positive aspects of personality, acts of which we are proud, and areas of interest can be presented to and furthered in the online community. Additionally, the ability to create differing avatars, screen names, and logins alleviates the need for self-exposure while seeking information, community, or experimenting with differing concepts of one's own identity. The anonymity of digital media constitutes a freeing experience for many users, where words created by the user circumscribe their own presentation to others. Without the use of video, pictures, or sound files, those that the user interacts with are only able to grasp the identity that is presented textually, creating a degree of identity control that has never been seen before.

IM users will often experiment with different personas while switching between multiple IM conversations, allowing for a form of self-creation across numerous fronts, as well as self-expression. In utilizing multiple conversational platforms, Internet users are able to "try on" different personality traits and presentations, finding what fits best for their individual persona, keeping and discarding traits at their leisure. This is an act of experimentation that occurs in an unsupervised and therefore "private" space and ultimately allows users to blend favored modes of presentation into the public persona of each individual.

The ephemeral quality of Internet communications is extraordinarily helpful in directing attention to those qualities that one hopes to accentuate, and downplaying others. The added benefit of text-only communication is the ability of users to later claim

that their irony or sarcasm did not translate- it is always possible to dismiss an exchange, reasonably, as not having been intended as serious. This method of erasing past experimental behaviors allows for a greater freedom from repercussion than is available via inter-personal communications, and perhaps explains the popularity of the digital texting modes of communication with teenagers, and the disinterest of those over 60 in experimenting with a technology that is so vital in the eyes of the younger generations.

The Internet also provides an outlet for those activities that engender community representation through crafted inclusivity. Fan fiction, a staple of popular culture, has evolved via digital media. Participants in slash forums tape mass media productions and edit them to represent not only story lines of their own devising (a historical application of fan fiction) but also to alter the story lines to represent communities not previously included in the mainstream media version of the story. Most notable is the development of same-sex romances between characters in popular fiction. If the individual editing the story wished to display a fantasy about themselves, it would seem logical that images of the individual would be inserted into the digital text. While this is an element that exists in fan fiction, the bulk of same-sex romance fan fiction is centered on the representation of particular types of social interaction, rather than on individual fantasy.

2.4 Celebrity

Individuals identify with celebrities through a process of second-order intimacy as a manner of obtaining a sense of societal belonging.[47] *Para-social* relationships (relationships in which individuals may never meet face to face) are increasingly evident

[47] Rojek, Chris. *Celebrity.* Chicago: Reaktion Books. 2001, 52.

in a digital media society. However, the attachment to celebrities through traditional media is worth noting: for example, members of the public who participated in the grassroots mourning activities for Princess Diana contained significant pockets of marginalized communities, such as gay men and racial minorities.[48]

Johnson theorizes that identification with celebrities is a facet of "identification work", in which individuals identify with cultural icons based upon perceived similarities or representations of qualities that the individual wishes to have.[49] Icons "represent typical ways of behaving, feeling and thinking in contemporary society, ways that have been socially, culturally, historically constructed" according to Dyer.[50] These representations allow consumers to make sense of the world around us, and also allow for a degree of vicarious experience through personal "bonds" with particular celebrities.

Celebrities not only have established a higher visibility, but are also marketed as living a better quality of life in terms of material goods, access to sexually desirable partners, and escaping the full legal consequences of their actions. All of these qualities, which are carefully spun by publicity teams, create public perceptions of extraordinary people living extraordinary lives. Additionally, participation in charity and political events creates a perception of increased agency delivered to celebrities as a benefit of their newsworthiness, another appealing aspect of celebrity in the minds of consumers.

The combination of increased agency, wealth and desirability is quite appealing, and the inclusion of a reduction in social and legal repercussions to actions is another

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[48] Turner, Graeme. *Understanding Celebrity.* London: Sage Publications. 2004, 98.
[49] Johnson, Richard. "Mourning Diana: Nation, culture and the performance of grief." New York: Routledge. 1999, 24-33.
[50] Dyer, Richard. *Heavenly Bodies: Film Stars and Society.* London: BFI Publishing. 1986, 17.

notable benefit to celebrity. For example, the social response to celebrity pregnancy outside of marriage is that of general acceptance, and is treated as both a positive event and a reason for excitement in the media, while unwed mothers socially may not experience such an outpouring of support. In light of this, is it really so surprising that many individuals wish to commodify themselves as celebrities?

Chapter 3: Mass Media and the Individual

The manner in which media images "sink in", and are accepted by the human brain almost automatically, without the viewer's conscious awareness or active decision to accept/retain the concepts and ideals presented, is one of the most subtle and unavoidable mechanisms of modern society. Television was historically intended to act as an educational medium, and was supposedly subverted to entertainment as a result of audience enthusiasm. Professionally produced media has reinstituted the "educational" aspect of broadcast media on an exceptionally sophisticated level, thus creating a pervasive and endemic vehicle for instilling social ideology within a population that generally lacks the requisite media literacy to separate ideological content from hard news and pure entertainment.

3.1 The public sphere

While journalism has typically claimed the status of a "mirror" to society, there is significant evidence that the mirror presents distorted images.[51] Mass media, particularly news artifacts, have been demonstrated to be "remarkably effective at telling the public what to think about".[52] This aspect of agenda setting both in the news and in society demonstrates the necessity for parity in access and representation for those groups within society who are marginalized or emergent; without unbiased representation, society will not consider the issues facing marginalized or emergent communities as valid.

[51] Stephens, Mitchell and Mindich, David T.Z. "The press and politics of representation." *The Press.* Eds Geneva Overholser and Kathleen Hall Jamieson. Oxford: University Press, 372.
[52] McCombs, Maxwell. "The agenda setting function of the press." *The Press.* Eds Geneva Overholser and Kathleen Hall Jamieson. Oxford: University Press, 164.

Clearly, when majority demographic members control agenda setting, bias will be present in the media, even if it goes unrecognized by either author or consumer. This can only be balanced by the inclusion of other perspectives within the news channel, via print, broadcast, or Internet.

Althusser cites the educational system as the primary vehicle for the "reproduction of the means of production".[53] Today the educational system is so intertwined with media that classes center around the Internet, videos are often watched to introduce new topics, classes are provided in public schools via satellite, cell phones, portable video, and Internet devices are endemic, and instant messaging and texting replaces the conversation and social contact among students. As modes of dress, interpersonal communication, entertainment, even modes of religious expression and political belief are mediated through the interface of digital and analog media, combined with the focus on the young adult by advertisers, the educational system has become an environment in which media mores obtain a level of influence that equates to almost total control.

There is no aspect of life that is not addressed by the media; therefore, in the modern world, not only education, but also every one of Althusser's Ideological State Apparatuses (ISAs) are ultimately influenced by the media. There is no instance or cultural grouping that is not strongly influenced by media representation: even the Amish have increasingly been incorporated as media subjects.

In Debord's words, media becomes "a social relation among people mediated by images", and Hall warns us that although broadcast ideologies are based in cultural

[53] Althusser, 131.

norms, "Polysemy must not, however, be confused with pluralism."[54] This conflict between media message and lived reality, in which mediated reality becomes more real than lived life, creates a conflict within society as well. As members of modern culture seek to effect and instill the messages retained from the media and other ISAs, they enact these messages within their own lives, whether consciously or unconsciously: The "dominant hegemonic position" inferred by Hall is spread, much in the manner of a contagion.[55] As the ideology distributed within mediated messages is passed among people as well as among media, a new question arises: If the secondary medium within media is ideology, then who puts it there, and how is this accomplished?

3.2 The homogenization of media

Cultivation theory is the theory of media effects over time. Three concepts are considered central in analysis of media's effect upon society*: institutional process analysis*, *message system analysis*, and *cultivation analysis*. *Institutional process analysis* is the analysis of structural influence upon the formation of media messages. Corporate ownership, especially in the current media environment of corporate conglomerate media holdings, homogenizes media offerings as large corporations owning multiple channels obtain a greater portion of the audience. Ethnic makeup of employees filling the management positions within these companies also contribute to the homogenization of media, as minorities only constitute some 8% of this demographic.[56] The need to supply

[54] Hall, 168.
[55] Hall, 168.
[56] Newkirk, Pamela. "The Minority Press: Pleading Our Own Cause." *The Press.* Eds. Geneva Overholser and Kathleen Hall Jamieson. Oxford, New York: Oxford University Press, Inc.

company shareholders with profits also reduces the number of reporters on staff in news production offices, reducing the number of voices represented in media as more and more channels rely upon sources such as the AP Newswire rather than conducting investigative reporting of their own.[57]

Message system analysis is trend analysis that takes place yearly, as week-long segments of televised media are analyzed for common traits and themes, providing statistical data for media analysis. [58] *Cultivation analysis* consists of audience responses to questionnaires that are constructed to determine audience members' belief regarding social norms such as stereotypes. *Cultivation differential* is the difference in social perceptions between those who consume little television and those who consume a significant amount of televised entertainment and news media.

It has been demonstrated that heavy viewership cultivates societal beliefs and norms that match the "images, values, portrayals, and ideologies that emerge through the lens of television".[59] These ideologies have been demonstrated to affect viewer's perceptions of and actions toward members of minority communities in the categories of age, race, gender, and sexual orientation, as well as attitudes toward more generalized concepts such as science, religion, education, family, politics and the environment.[60] Priming research is based upon the concept of cultivation.

2005, 81-91.

[57] Newkirk. 86.

[58] Morgan, Michael, James Shanahan, and Nancy Signorelli. "Growing Up With Television: Cultivation Processes." *Media Effects: Advances in Theory and Research* 3rd ed. Eds. Bryant, Jennings and Mary Beth Oliver. New York: Routledge. 1994. 35.

[59] Morgan et al. 35.

[60] Ibid.

At the end of World War II, over 80% of newspapers were independently owned. In 2005, over 80% of newspapers were owned by media conglomerates.[61] The concept of media ownership of this magnitude is relatively new, having developed in the last thirty years, without consistent, clear notification of the public by the media themselves.

In 1996, the Telecommunications Act repealed all limits to national radio ownership, restricting local radio station ownership by market size, with the top limit of eight stations in one market. The Telecommunications Act also repealed all cross-ownership rules, although the FCC has retained a policy against cable broadcast system ownership and local broadcast station ownership in a single market. In 1999, the FCC replaced the original one-to-a-market rule in favor of the duopoly rule, allowing station owners to control two television broadcast stations within a single market if there were eight other stations operating within that locale.

In 2003 the standards of media outlet ownership were reduced to the current state, prohibiting media conglomerates from owning and operating more than three local broadcast stations in the largest metro areas, and two local broadcast stations in smaller markets, provided that only one station ranks within the top four. Additionally, the cap for national broadcast stations is limited to no more than 45% of national viewing households, with UHF frequencies being calculated as half of a frequency in the FCC's equation.[62] Moreover, the Supreme Court has increased protection for commercial

[61] Picard, Robert G. "Money, media and the public interest." *The Press.* Eds. Geneva Overholser and Kathleen Hall Jamieson. Oxford: University Publishers. 2005. 342.
[62] Horwitz, Robert B. "Communications regulation in protecting the public interest". *The Press.* Eds Geneva Overholser and Kathleen Hall Jamieson. Oxford: University Press. 2005, 284-302

speech to a level equivalent to that given political speech.[63] The implication of this change is important: politicians and manufacturers of consumables do not share the same level of responsibility for their speech as the average citizen. This indicates not only a power differential, but also a lack of accountability on the part of financial elites.

In 1971, the standard requirement of applicants for broadcast licensing was a determination of the socio-economic, ethnic, and cultural compositions of the market, and to consult with community leaders to identify appropriate programming and community issues to be addressed via the broadcast programming.[64] Effectively, media channels are not required to take action to meet the needs of their market demographic, but only to discover the demographics and their needs. Between the institution of this standard and the modern conglomerate ownership situation, the standard of marginalized or emergent social groups' ability to access media has been gauged by hiring statistics, rather than by the content aired.[65]

This reduction in standards reflects the lack of hard data demonstrating a positive impact upon diversity in news reporting by the standards in effect previously. The issue of how diversity is defined is central to this issue. While diversity appears to have been defined as the number of individuals who were in ownership of media outlets, the more important issue in terms of diversity in news reporting relies upon a diversity of background, heritage, political view point, and gender representation in the news reportage.

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[63] Kirtley, Jane E. and Sanford, Bruce W. "The first amendment tradition and its critics." *The Press.* Eds Geneva Overholser and Kathleen Hall Jamieson. Oxford: University Press. 2005, 271.
[64] Horwitz, 291
[65] Horwitz, 295.

Pamela Newkirk writes,

> "In 2004, while racial minorities presented more than 31 percent of the population, they held about 12 percent of newspaper, 18 percent of television, and 8 percent of radio positions. When attention turns to management, the landscape becomes even whiter. People of color held 9.7 percent of newspaper, 9.2 percent of television, and 5 percent of radio news management jobs."[66]

While Newkirk is clearly referring to the status of racial minorities in the press, the percentages can only be worse if religious, gender, and sexual orientation minorities are included in the data. It is likely that if the media were to be broken down by *visible* representation (as seems appropriate for a visual medium) that the statistics on marginalized or emergent representation in positions that are visible to audiences or that affect the visible presentation of the news would also worsen.

3.3 Issues of access

Popularly considered a "democratic" medium due to the lack of gatekeepers, the Internet allows for significant social participation on the part of citizens who are able to afford and use the technology. With a demographic that is largely white, educated, and in the upper income brackets, those who are socially disadvantaged due to skill level, age/attitude, minority status or SES are effectively excluded from participating due to the cost of the technology needed and the inconvenience of using, or inability *to* use, the free access in public institutions, the Internet is simply not available to enough of the populace to qualify as a truly democratic medium at this time.

In reference to the Utopian future in which everyone will have the access, technological knowledge, and income needed to participate via the Internet, other issues

[66] Newkirk, 82.

arise, namely those of visibility and organization. Visible or physical media artifacts serve as a representation of society that is shared and public. While the Internet allows for self-expression on the part of those who have both access and the requisite skills, as a platform for voice the Internet is largely ineffective. Given the large body of expression on the Internet, the chances of receiving widespread recognition, of being heard, are minimal. Conversely, the availability of an outlet for expression appears to cause a public perception that there is a platform for being heard available, reducing public pressure on mass media channels for equitable representation.

3.4 Agency and representation

In 1941, CBS granted the National Urban League (NUL) one hour of airtime to broadcast a radio program in order to publicize the NUL's annual vocational opportunity campaign. CBS offered the time in exchange for the NUL creating an entertainment program featuring well-known Black artists, a program that CBS was unable to find sponsors for, but were interesting in broadcasting if the NUL was able to obtain the artists at no fee.[67] At the time, this constituted a remarkable opportunity for these artists, and as a result, the NUL was able to put together a program featuring Marian Anderson, Ethel Waters, Duke Ellington, Louis Armstrong, and Joe Louis. This was the first program of this length to feature an all Black cast.[68]

The response to this program was immediate and widespread. Articles on the program appeared in both Black and White newspapers, letters were written in support of

[67] Savage, Barbara Dianne. *Broadcasting Freedom: Radio, War, and the Politics of Race 1938 – 1948*. Chapel Hill and London: The University of North Carolina Press. 1999: 1-17; 234-277, 160.
[68] Savage, 161.

the program, enthusiastic phone calls were received, and the program generally created widespread enthusiasm for the cause as well as for the artists. Responses included expressions of appreciation from listeners who had not previously understood the issues facing the Black community.[69]

However, when other Black organizations attempted to obtain airtime for similar programs, CBS responded that they had already "granted time to other 'negro organizations' that year."[70] In 1942 the NUL was unable to obtain airtime, but in 1943, they were granted broadcast time, not only on CBS, but on all national radio networks.[71]

Stephens and Mindich cite Hallen's concept of the "Sphere of Consensus", those societal ideas which are accepted without challenge in media representations of the world, as contrasts to the "Sphere of Legitimate Controversy" and the "Sphere of Deviance".[72] The Sphere of Legitimate Controversy encompasses those ideas that are occasionally allowed airtime or inches in media, while the Sphere of Deviance refers to those ideas and issues that are rarely, if ever, addressed in the media.[73]

In order for minority communities to obtain equality within society, obtaining an equitable representation within media is a crucial first step. This step must be achieved in order to present community concerns to the majority public as legitimate and actionable concerns. The second step involves framing the minority community within the press as a cohesive whole, a community worthy of respect, representation, and being heard. In short, in order to achieve social equity, minority communities must obtain representation

[69] Ibid.
[70] Ibid., 166.
[71] Ibid., 168.
[72] Stephens and Mindich, 375-376.
[73] Stephens and Mindich, 376.

of the community that allows for majority community members to identify with community members' ideas and experiences, in effect raising the community into the dominant ideology. Both the Irish-American and Italian-American minority groups achieved these steps so successfully that they have been absorbed into the dominant ideology, to such a degree that both of these minority groups, previously considered to be "ethnic", are now considered to be "white".

These are issues which have continued to plague marginalized communities, particularly invisible minorities, who are not able to obtain clear visual representation. Invisible minorities include those with mental health disabilities, people with physical disabilities, and the Queer community. Particularly in the case of the latter group, respectful framing in the news is difficult to obtain, as news media tends to dwell on sensational representations of the leather community, bizarre instances, and deviant sexual practices. Those with mental health issues have also found fair representation difficult to obtain, as most of the media coverage this community receives is in the context of violent or criminal acts. The disability community is rarely represented at all.

Establishing a platform for voice and agency not only requires obtaining representation, but also representation that makes it possible for effective collective agency in the political realm. For example, media typically will characterize members of the Queer community as "gays" or "lesbians" or "transsexuals"; there is no collective representation of a community that strives for political cohesiveness. As a result, members of these marginalized communities may obtain airtime, but to date effective agency has been limited, and when agency is obtained, it is plagued by a "one-step-

forward, two-steps-back" progression. As a result of this dynamic, the public sphere is the primary site of struggle for agency in a mediated society.

Chapter 4: Media as Cultural Communication

Every culture has a tradition of performative communication, as part of religious practice, cultural festivities, political support and dissidence, and oral traditions. Before the advent of the printing press, these performances constituted both social meeting points in society and a platform for shared experience, a basis for belonging, understanding others, and experiencing culture. It is theorized that humans not only survive better in social groupings, but that we may have evolved to need those social groupings in order to survive. Regardless of intimate connections, participation as either audience or performer in cultural events constitutes participation in society.

The advent of the printing press widened the audience of the shared cultural experience, and broadcast media has added to the convenience of consumption and has increased mass participation from reading representations as filtered by reporters, to seeing individuals and societies, and hearing their voices.

Mass media produces the sense of actually interacting with the individuals represented in media, and our brains do not distinguish between actions seen in media and actions seen in person. However, one of the fundamental questions in understanding how the brain responds to media is in understanding the performative codes that allow for the elision of story lines, representations of locales, acts, and relations that cannot be explicitly depicted in media. This chapter discusses some of the traditions production techniques used to represent actions and intentions not depicted in the media narrative, and the techniques used to heighten the effect of those actions and intentions that are represented.

4.1 The development of narrative

Narrative encompasses both form and function. The form provides a structural organization that allows consumers to understand what is implied by each change of scene, camera angle, or character present in the image. The elements of form are related and interdependent, and may rely upon social convention, rhythm, color, patterns of display such as flashbacks, flash-forwards, and soliloquies. Similarity and repetition in film form is referred to as a *motif,* and motifs are used to emphasize selected elements within the narrative framework.[74] Motifs may be used to create rhythm within the editing process itself, speeding action and creating a sense of anticipation. In contrast, variation, particularly jarring variations such as jump shots, may be used to create a sense of anxiety within the narrative structure.

Most narrative lines seek to create a sense of mystery, to arouse curiosity in the viewer. Traditionally this is accomplished with an opening shot in which a situation is already established. The remainder of the narrative progress will provide the back story, explaining how the characters arrived at this impasse. The arrangement of shots within the narrative allows the consumer to construct a cause and effect relationship between the actions, even if the action is not presented chronologically.[75] This non-chronological order of events is generally understood by connecting other production values such as lighting, set, or costume elements, allowing the scenario to be reconstructed within the viewers' imagination.

[74] Bordwell, David and Thompson, Kristin. *Film Art: An Introduction.* Seventh edition. Boston: McGraw Hill. 2004, 60-61.
[75] Bordwell and Thompson, 69.

Narrative allows for the spatial connection of events and individuals, the discernment of causality, and the construction of relationships between characters. In part, this is the result of carefully considered shots placed in an order that has meaning. As humans are particularly good at this type of pattern recognition, a large portion of the viewing experience may be comprised of filled in relations between elements and individuals as audience members construct the story individually, each drawing their own conclusions. Bruce Connor, a cinematic artist who focuses on pattern recognition as a primary element in his work, constructs films out of found footage. Characters, elements, scenery and props all change as the footage translates from clip to clip, and yet Connor is renowned for creating clever, often surprising stories, with a great deal of humor caused by the unexpected causality links viewers create when watching Connors' work.

Formally, the *Kuleshov* effect refers to connecting disparate events or construing images of an actor to be emoting in relation to one event, when a similar shot later is connected to a different effect. These causality links may not be logical, but rather an assignment of values on the part of the viewer, layered onto the cinematic elements.

4.2 Production techniques

The use of production lighting can be subtle, as light usage creates a psychological impact upon the audience combined with an associational impact or representation. These are not free-associative influences; individual media channels frequently play off other forms of presentation within the media, and create standards of representation within these usages that are practiced on their own channel. For instance,

soap-operas are lit with soft cosmetic washes, which have increasingly been utilized in newscasts, in contrast to the traditional, starker and flatter lighting of decades past. This chapter contains a summary of selected basic production techniques and considerations used in constructing performative mass communication.

Lighting: Perhaps the most complex of the technical elements in performative media, lighting is a source of information indicating location, time of day, time of year, emotional state, character, and relations between individuals. Primary theories used in creating production lighting include *source selection, the color rule, McAndless theory, shadow play, beam edge,* and *angle considerations.*

Source selection: The first step in beginning a lighting design is determining the primary lighting source for the production. Outdoor light, indoor light, electric, gas or firelight, all denote a specific set of color, angle, beam edge and intensity considerations. Outdoor light color choices are cooler, usually featuring blue washes indicating the time of day through color saturation. The beam edges in this condition are likely to be soft for color washes, and blue-edged for breakup (pattern) washes. Intensity will generally be high, as the sun is a primary source of light. However, combining a strong intensity highly saturated blue wash with a comparatively low intensity, angled low saturation blue wash is generally considered to represent moonlight.

Indoor lighting will generally be either warmer or greener, depending upon the type of lighting specified. Incandescent, gas, firelight and candlelight are indicated by warm spectrum choices, with gaslight warmer than incandescent, and firelight warmer than gaslight. If fluorescent lighting is being used, either white light from fixtures with

the lenses removed or a low saturation green filter may be used to produce the starkness of fluorescent fixtures. Intensity will vary depending upon the lighting source, with firelight and candlelight requiring a programmed flicker rate to read effectively. Lighting *source* considerations are the primary basis of lighting design, but emotional indicators and character indicators may supersede the source choice when necessary for dramatic or narrational requirements.

The color rule: The color rule states that once a color is used to indicate a particular characteristic such as time of day, emotion or character, that color cannot be used to represent another concept. If this rule is broken production methodology assumes that audiences will experience confusion, breaking their suspension of disbelief, and breaking their engagement with the media. For example, if a particular shade of red is used to symbolize danger, then it cannot be used in the same production to symbolize anger, passion, love, hell, or fire. Other shades may be used to symbolize these characteristics, but the shades need to differ sufficiently to clearly indicate to the viewer that a different state is represented.

McAndless theory: McAndless theory argues that lighting is used to sculpt objects within three dimensions. In order for the viewer to clearly see the actors, the actors must be lit from multiple angles. Three-point lighting is traditionally used in film and video, while stage lighting is comprised of area light, specials (isolations) and color washes. McAndless theory requires that area lighting from two angles roughly 90 degrees apart be used, each source at a 45 degree angle to the fourth wall. One side of the lighting areas will be warmer and the other cooler. This is often misinterpreted to require the use of

yellow and blue color gels (called false McAndless), but true McAndless theory requires only a difference in shade, for example, a warm pink paired with a cool pink, of equal saturation. This theory allows for the creation of naturalistic shadows across face and form, increasing the sculpting of the person or object being lit without creating shadow that are too intense, and therefore confusing to viewers.

Sets are also lit to convey a sense of three dimensionality, with certain elements lit with differing shades of a color to increase the perception of distance. Alternatively, certain areas of a set may be lit using lighting corridors or different color themes to isolate them visually from other portions of the set. Color washes may indicate location or general emotional states, as a chocolate wash is associated with old photographs, indicating nostalgia, or a pink wash may indicate tenderness. Conversely, a combination of turquoise and orange washes from different angles may represent energy and exoticism.

Shadow play: Shadow play may refer to the use of silhouette lighting, scrim lighting, single source lighting or pattern usage. Silhouette lighting is generally used to objectify an individual or to characterize their isolation from others. Scrim lighting, in contrast, is generally used to reveal an actor standing behind a stretched cloth barrier that may be painted to indicate location. When light reflects off the scrim, the scrim is visible. However, when the scrim is not lit, but the area behind the scrim is lit, the person or people in the lit area are visible. This technique is used primarily in theater to indicate memory, flashbacks, or to present the character speaking in their own voice while the protagonist reads a letter or speaks to them on the phone. This representation of time

differential or location differential is represented in film through flashbacks and intercut shots of different locations, a more realistic representation of the time or location differential, yet audiences do not appear to have any difficulty understanding the representational use of scrims in live performance.

Single source lighting or the use of a pattern as a single source generally indicates a starkness of subjective experience. A highly shadowed figure indicates that the character is hiding something, while pattern usage in this instance will provide locational information combined with a sense of loneliness.

Lighting angle: Particularly when used in isolations, beam angle is represents emotive characteristics of the actor. Up-angle lighting is generally indicative of threat, perhaps in association with the convention of scary stories told with a flashlight under the chin lighting the story teller. Severe down light will tend to indicate a sense of isolation, of being trapped, while side lighting emphasizes the physical form in space aesthetically. Angle is particularly effective in the case of eye lighting for film, in which banks of lights may be set up to reflect off of the eye, creating a starry look, indicative of a dreamer. Eyes may also be lit to highlight the lower rim of the eye, implying a gathering of tears. The iris of the eye may be side lit, providing a sense of intensity and focus, or supernatural power. In contrast, a lack of light reflecting from the eye is associated with "dead eyes" indicating psychosis or threat.

Lighting effects: Lighting effects will generally reflect movement, such as the movement of a car past telephone poles during the day, represented by rhythmic low intensity shadows across the side light. At night, the effect can be created by randomly

pieced colors and light blocking on a color wheel, causing light to flash across the side of the actors face. Combined with locational lighting indicating dashboard lights and front lighting cut across the forehead, this technique can be effectively used to represent the motion of a car in an urban area, which can then be green-screened into footage. Motion effects can be accomplished in many ways; the key here is to note that a lack of motion in the lighting will be jarring for audiences. In film, this effect is usually obtained through the use of a camera mounted on the hood of a car, recording the naturalistic changes in lighting intensity and color as the vehicle moves.

Other examples of lighting effects include the projection of car headlights through a window as the light travels across a wall. In order to realistically produce this effect a series of fixtures aimed at slightly different angles and faded in sequence may be used, or a single fixture rigged to travel along a track. Flashes of light usually indicate lightning, and lighting through a glass pane, which is sprayed with water, indicates not only rain, but also sorrow.

The elements of media production have become increasingly sophisticated, allowing image impact to be heightened and controlled. Camera angle can be altered to imply a psychological stance on the part of the viewer: looking down upon someone, or up to someone, provokes a responsive attitude in the viewer. Sound engineering allows for the compression, support, and tweaking of tone: an actor's voice can be made to sound whiny or high-pitched, indicating ineffectuality or even creating a sense that this person is merely a complainer by nature. Additionally, sound can be used to create a persuasive stance, by "filling out" or supporting the voice, adjusting the tonality, and

providing a higher quality of vocal microphone or adding compression in the processing room, a voice can be made to sound stronger, more authoritative and more mellifluous.

Ambient sound effects provide locational associations to audience members, whether urban, suburban, or surrounded by nature. Traffic sounds and sirens indicate urban locations, with sirens featuring an association with night time hours. Crickets and traffic indicates a suburban location in the evening, while wind blowing through trees combined with running water will tend to indicate a purely natural setting. These are concrete associations, and can be constructed into soundscapes of amazing complexity.

Sound can also be used to heighten effects in more subtle ways. The use of audio surround systems can place media consumers in the middle of a crowd, for example, and provide directional information for new sound stimuli. Conversely, sound played subliminally may heighten tension, as a deep roar may be felt rather than heard, creating a sense of oncoming threat or danger.

This is a brief summary of some of the effects used in media production. It is not possible to provide descriptions of the full body of techniques, as they are limited only by the personal creativity of the designers in response to the needs of the production. The primary note of import is that audiences perceive and understand these cues, implying that there is indeed a series of shared meanings, cultural and psychological, as well as physiological.

Chapter 5: Visual Cognition

Visual elements in television and film are highly controlled. Camera angle, lighting angle, color, costume, makeup, set, the physicality of actors including both facial expression and body language, all combine to evoke specific intentional responses. Post-production editing is then used to combine the optimal shots together in a manner that is also a stylistic choice as well as a content choice. Depending upon the media text, anywhere from ten to thousands of individual people may collaborate to create the image that is received by viewers. Assuming that any of these elements are meaningless or unimportant when analyzing the effect of the media is an unwise choice, ignoring the imbedded intentionality inherent in every aspect of visual media.

As production values determine the nature and effectiveness of the media message being received by viewers, clarifying the specific characteristics of the mechanisms used to create an effect as well as the impact of the mechanism upon the visual cognition of the message is a necessary first step in analyzing media artifacts. As displayed media images are perceived as symbolic by viewers, representing objects and concepts not actually present on the screen itself, an analysis of those elements that are present is useful in interpreting the symbolism likely to be triggered in viewers.[76]

[76] Worth, Sol and Gross, Larry. "Symbolic Strategies." *Journal of Communication.* Vol. 24, No. 4. 1974.

5.1 A précis of visual function

The human brain allocates an estimated 50% of function to the processing of visual stimuli.[77] Evolutionarily, perceptions of motion, color and surface characteristics, depth, width, and height have all contributed to the survival ability of the human animal. The visual capabilities of humans have allowed for the location and identification of safe food items, sources of danger, and navigation within the physical world. Media, however, capitalizes upon the visual capabilities of humans in a manner that takes advantage of these inherent abilities, without providing a comparative survival benefit, outside of the social participation value delineated in chapters 1-3. Although consumers are aware that media images may not be "real", the brain itself does not distinguish between visual inputs of "real" objects and people, and mediated images of objects and people.[78] This concept has been established through a number of experimental situations, and is so widely accepted that vision research within the fields of neuroscience, cognitive science, and psychology utilize media vehicles almost exclusively in experimental situations.[79]

Typically, humans perceive vision as providing an image of the world around us that is analogous to images captured by a camera, flowing smoothly. However, the visual system only captures images crisply and in full color for a very small percentage of the visual angle. Although this percentage (usually two to three degrees of the visual angle, or the width of a thumb viewed at arm's length) can be increased through allocation of attention, the full-resolution portion of human vision does not exceed a maximum of 5

[77] Eberhard, John Paul. *Brain Landscape.* Oxford University Press: New York. 2009. 86.
[78] Reeves, Byron and Clifford Nass. *The Media Equation: How People Treat Computers, Television, and New Media Like Real People and Places.* Cambridge University Press, 1996.
[79] Schrater, Paul R. Interview. 10/26/2010.

degrees of the full visual angle.[80] Typically, the working visual field in humans encapsulates an area roughly 45 visual degrees in height by 120 visual degrees in width, providing an area of high resolution vision that is equivalent to .005% of the full visual field.[81] Different parts of the brain process color, motion, location, orientation, texture, edge, and distance, and these characteristics of the object or scene under view are processed and assembled in the brain- providing the perception of an uninterrupted and seamless stream of sharp, clear, high resolution vision.

Retinal ganglion transport input from the eye to the thalamus (specifically to the lateral geniculate nucleus or LGN), where roughly 90% of the input from each eye is processed in the contralateral LGN- that is, input from the right eye is handled by the left LGN, and vice versa. The monocular signals (one from each eye) are then sent to the primary visual cortex, where the images are assembled into a coherent whole. The primary visual cortex (V1) contains groups of neurons sensitive to orientation, which fire in response to images that match the specific orientation that those neurons are keyed to, matching the image to the appropriate neurons. V1 neurons also respond to direction of motion, color, and binocular disparities. From V1 visual input will feedforward to the more specialized areas of the brain. The primary pathways from V1 to other visual processing areas follow two primary pathways: the ventral and the dorsal pathways.

The Ventral pathway: The ventral pathway travels from V1 to the extra striate cortex (V2-V4), and from there input is transferred to the temporal lobe where object

[80] Baars, Barnard J; Gage, Nicole M. *Cognition, Brain, and Consciousness: Introduction to Cognitive Neuroscience.* London: Academic Press. 2007, 149-151.
[81] Jacob, Pierre and Jeannerod, Marc. *Ways of seeing: The scope and limits of visual cognition.* Oxford: University Press. 2003, 46.

identification is processed. From the temporal lobe, input is fed forward to the ventral bank of the superior temporal cortex and lateral frontal eye field.[82] V2 primarily handles object contours, while area V3A handles depth.[83] V4 processes perceptions of color, and neurons in this area are also responsive to characteristics of shape or angle, specifically those that denote corners or curves.[84] The middle temporal region (MT or V5) responds to direction of motion cues and patterns of motion.[85] The superior temporal sulcus (STS) handles recognition of specific facial features (separately from the fusiform face area), and biological motion. From the STS, information passes to the inferotemporal region (IT) processes complex features of objects with 2D and 3D characteristics, texture and pattern, including the processing of multiple patterns or multiple colors related to a single object. The IT also handles the creation of visual stimulus memory.

Generally, the ventral system handles central vision, object recognition, and the exploration of the eye field through small eye movements. The ventral system is more organized and slower than the dorsal pathway, and contains direct inputs to the MT and V6, which V6 handles the spatial orientation of the individual objects in sight.[86]

The Dorsal Pathway: The dorsal pathway travels from V1 to the MT and then to the posterior parietal lobe, where object orientation and relation are handled. Dorsal parietal areas active in the dorsal system include the upper bank of the superior temporal sulcus and the medial portion of the frontal eyefield. The dorsal parietal lobe contains the

[82] Jacob and Jeannerod, 57-66.
[83] Baars, Barnard J, and Gage, Nicole M. *Cognition, Brain, and Consciousness: Introduction to Cognitive Neuroscience.* London: Academic Press 2007, 154-162.
[84] Baars and Gage, 152.
[85] Jacob and Jeannerod, 56.
[86] Eberhard, 80-81.

lateral intraparietal (LIP), the medial intraparietal (MIP), and the anterior intraparietal (AIP).

The LIP tracks locations, in the context of mapping spatial distances in preparation for eyemovement. The MIP handles mapping of objects for physical interactions such as grasp, and the AIP handles object characteristics such as size, and prepares data needed for appropriate hand movements. [87]

The dorsal pathway supports peripheral vision, object location, and large eye movement. In general, the dorsal pathway is faster than the ventral, and less hierarchical, although both pathways contain feedback and feedforward connections between areas active in the relevant pathway.

Secondary to the ventral and dorsal visual pathways is the limbic system, which handles emotional response to immediate experience. The ventral pathway (the "where" system) is able to send data to the amygdala, but the dorsal pathway does so automatically, producing an immediate emotional response to stimuli (generally from movement towards the subject) followed by a later emotional response to data from the ventral pathway (the "what" system). As the amygdala also receives data from other brain modalities, it is theorized that this is an evolutionary characteristic designed to spur immediate responses to threat.[88]

The primary (ventral and dorsal) visual topological process has been discussed previously, as has the secondary (limbic) processing of visual stimulus. Once visual input

[87] Jacob, and Jeannerod, 57-66.
[88] Sasaki, Hiroshi. "Cortical and subcortical processing of color: A dual processing model of visual inputs." Eds. Skusevich, Darius; Matikas, Petra. *Color Perception: Physiology, Processes and Analysis.* Nova Science Publishers: New York. 2010, 116.

has been processed by the prefrontal cortex (unifying the visual data received from other visual processing areas), it is transferred to the secondary topological areas of the brain: the cerebellum, the basal ganglia, and the hippocampus, for analysis. At this location, the conceptual context of the information is compared to existing knowledge, experience and personal ideology. From these locations, the filtered information may be sent to the amygdala for secondary emotional qualities to be added, depending upon how well the data has matched pre-existing experiences.

The third topological arrangement in the human brain is a series of fine connections, spreading through almost every part of the brain. These connections may be the basis for the "talk-back" function of conscious thought in response to received stimuli, but it is not certain at this time that this is the case.

These processes all take place at the preconscious level, and before the parietal lobe unites the processed data streams, providing the visual stimulus which we are consciously aware of. The interconnectedness of the elements in the ventral and dorsal streams respectively, allows for continuous updating of data input, checking of obtained data, and the layering of emotional response upon the visual stimulus before the conscious mind becomes aware of the visual data. In this sense, visual data is front-loaded with a degree of emotional content before it is consciously perceived- and conscious analysis of the visual data takes place at a higher level, after the experiential data is received.

Brain function is highly individualized due to the plasticity of the biological structure. Experience can actually expand portions of the brain, allowing for increased

processing of data, contextualizing new data within the functional worldview that has been previously created. Heritable genetic traits may cause a pre-existing increase in processing capacity, but the primary mode of structural change in the biological function takes place through experience, with the most significant size increases in any specific region found in those individuals who began exercising that region at a young age.[89]

It is theorized that visual intelligence is one of the primary evolutionary foundations of human intelligence.[90] Donald Hoffman argues that each individual constructs a functional grammar of vision that informs the individual about the environment, a personalized shorthand of meaning through which all incoming data is interpreted, and if found useful, added to the database.[91] What may prove particularly relevant to the question of how, precisely, media is seen, is the degree to which incoming data is processed at a pre-conscious level.

5.2 Visual Cognition of Media

Lighting: Functionally, lighting is the necessary element for vision, and the question of whether the luminance inherent in media images constitutes a primary filter for perceptions of reality (as opposed to identification as an image that is qualified as media generated) has not been addressed in neuroscience, cognitive science, or psychology to date.

Color: Color is perhaps one of the most strongly evocative characteristics both of light and material objects. Studies have found that certain colors in lighting provoke

[89] Eberhard, 85.
[87] Eberhard, 85.
[91] Hoffman, D.D. *Visual Intelligence.* Norton: New York. 1998.

specific associations in viewers, and that these associations can be remarkably consistent between individuals. Research conducted by Palmer & Schloss as well as by Darius Skusevich & Petra Matikas has demonstrated that the preference of one color over another in material objects is the result of the associations the individual makes with that color.[92,93] Hulbert and Ling have found that while both men and women prefer colors that are on the violet end of the spectrum as opposed to the yellow-green end of the spectrum, that women tend to prefer redder colors, while men will prefer blue-green colors.[94] Hulbert and Ling speculate that these preference trends are adaptive, and reflect hunter-gatherer task requirements- socially instilled genderization of colors (pink versus blue) are not addressed in their article.

Color creates a physiological response in humans that may trigger associated emotional response. Faber Birren found that blindfolded individuals altered their physical position in response to the change of color in environmental lighting: red caused the subjects to hold their arms farther from their body, while green light caused subjects to bring their arms closer to their body. As vision itself was not a part of this experiment, the argument may be made that humans are able to detect and respond to particular wavelengths physically.[95] While this response is unlikely to affect media viewers, the physical changes that lighting evoke in an actor may do so; in addition to the emotional qualia associated with the perception of motion and gesture, mirror neurons may trigger a

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[92] Palmer, Stephen; Schloss, Karen. "An ecological valence theory of color preference." *PNAS*. 107; 19 2010, 8877-8882.
[93] Skusevich, Darius; Matikas, Petra. *Color Perception: Physiology, Processes and Analysis.* Nova Science Publishers: New York. 2010, 116.
[94] Ling Y, Hulbert A, Robinson L (2006) Sex differences in color preference. Progress in Color Studies 2: Cognition, eds Pitchford NJ, Biggam CP (John Benjamins,Amsterdam)
[95] Birren, Faber. *Selling with Color.* Abbot: New York. 1947, 131.

response to the visual stimuli. See the discussion of mirror neurons later in this chapter for more information.

Color has also been demonstrated to affect cognitive ability. Red, in particular has been shown to undermine intellectual performance, but increases performance on low-level cognitive tasks. Blue has been demonstrated to increase creativity.[96,97] It is theorized that the effects of color are the result of a cultural symbolism regarding that color. Red is frequently associated with the idea of "stop" or "wrong", while green has been used to prime the idea of money, and cool tones, such as blue, are associated with calmness.[98] This may be the result of an evolutionary cue: stimuli, particularly stressors and irritants, alter the ability to perceive certain colors in certain situations. For example, sustained muscle strain reduces the ability to see the color green to 25% of normal ability, while increasing the ability to see the color red. The scent of rosemary, in contrast, increases the visible boundaries of green wavelengths in humans, and decreases the visible field of red wavelengths.[99]

Sets and costuming: Color, texture, pattern, line and style of clothing and sets provide strong cues to the viewer of the situational conditions and personal characteristics. Combined with lighting elements, make-up, wigs, and prophylactic costume devices (scars, masks, etc)**,** both the setting and the character portrayed within the setting are delineated in the viewer's understanding. These elements rely heavily

[96] Kuller, R., Mikellides, B., Janssens, J. "Color, arousal and performance- A comparison of three experiments. *Color Research and Application.* Vol. 34. 2008, 141-152.
[97] Mehta, R., Zhu, R. "Blue or red?" Exploring the effects of color on cognitive task performances. *Sciences.* 2009.
[98] Skusevich and Matikas, 228.
[99] Storozhuk, Anna. "Color: Ontological Status and epistemic role." Eds. Skusevich, Darius; Matikas, Petra. *Color Perception: Physiology, Processes and Analysis.* Nova Science Publishers: New York, 2010, 57-58.

upon the use of color and lighting, and add the necessity of spatial processing to the visual assumption of incoming data, increasing the viewer's cognitive processing load.

Expression and body language: Facial recognition is one of the most widely studies visual capacities in humans. The ability to recognize and interpret emotional states in others (often referred to as "mindreading" within the field of cognitive science[100]) is key to negotiating personal interaction.

In addition to coding for expression, faces of individuals are themselves coded for in the brain. Marco Iacoboni has demonstrated that "grandmother" cells in the brain respond to the faces of individuals who are known only through media vehicles. The Jennifer Anniston cell, for example, will light up when images of the actor are viewed, or images of the actor and one of her cast mates from the television show *Friends.* However, images of Anniston and Brad Pitt do not light up this cell, perhaps indicating that media consumption habits may code the cell rather than knowledge of the real-world relations of the actor.[101] Grandmother cells are utilized when knowledge of an individual or a situation is limited; friends or common situations activate neurons spread throughout the brain, linked to the various situations and associations with that individual. This works to our advantage, as grandmother cells, once destroyed, remove all of the information held about the individual for which they are coded.

The more widely spread the association with an individual, therefore, the less likely it is that all knowledge of that person will be lost.[102] This is likely an evolutionary

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[100] Mitchell, 66-75.
[101] Iacoboni, Marco. *Mirroring People: The new science of how we connect with others.* Farrar, Strauss and Gireaux: New York, 2008, 196.
[102] Iacoboni, 198.

response as knowledge about frequently encountered individuals and situations is necessary to survival, while rare occurrences may be lost without dramatic impact upon survival capability. The existence of other cells coded for well-known media actors (such as the Halle Barry cell) may also indicate that the homogeneity of interaction with that individual (passive observation rather than interaction) is relegated to a less-important status by the brain, an automatic organization inherent in the biological structure.[103]

Body language is less studied in cognitive science and neuroscience, and yet within media production, this element of presentation is highly emphasized. Small adjustments in physical stance are often used to indicate indecisiveness, attraction, and attitude change, among other states. Broader gestures such as the folding of arms to indicate intractability, or defensiveness are also used frequently. Perhaps the most fascinating aspect of this mode of communication is that while similar gestures are often used to indicate differing emotional states, it is relatively rare for humans to mistake one usage for another. For example, a common image in U.S. society is that of Superman, standing with his arms folded across his chest. How likely is it that this stance would be interpreted as defensiveness rather than as authority?

The mystery of how we understand the intention behind motion and gesture lies in the existence of mirror neurons. Studies have demonstrated that motor neurons are shadowed by mirror neurons, neurons that activate both when a specific motion is made, and when an individual *sees* another make an action. It is theorized that this is the source of empathy in the human mind, as we may indeed, on a very basic level, feel what other

[103] Ibid., 199.

people are feeling as we look at them.[104] Experiments detailing the function of mirror neurons have found that the intention of a gesture is the stimuli that activate mirror neurons, and the mechanism that primes intention appears to be past experience. Therefore, actions such as reaching for a food item will prime motor neurons associated with the muscles used to grasp that particular type of food item, as well as mirror neurons associated with muscles in the mouth and jaw.[105] Learning via imitation also uses motor neurons, as each gesture seen is mirrored by the relevant neuron, although in the instance of new gestures, the priming of the mirror neurons associated with the next step in the physical sequence will not take place.

Editing: Editing pacing in and of itself may produce an increase in the cognitive processing capacity allocated to the media message. Lang et. al. found that calm messages (non-arousing) combined with slow editing changes received lower levels of cognitive allocation, and correspondingly lower levels of recall, while increasing the editing pace of calm messages increased both arousal and recall. Arousing messages (messages that provoked a strong emotional reaction) cause greater cognitive allocation, but as editing pace is increased, there is a maximum of both allocative resources and recall that is reached before subjects achieve cognitive overload, and allocative resources are redirected to other stimuli, while recall drops.[106] Based upon these studies, an ideal mix of arousal and cognitive resource allocation can be achieved by emotionally affecting stories delivered with 8-12 editing cuts per minute (medium paced editing), or,

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[104] Ibid., 40.
[105] Ibid., 68.
[106] Lang, Annie, Paul Bolls, Robert F. Potter & Karlynn Kawahara "The Effects of Production Pacing and Arousing Content on the Information Processing of Television Messages." *Journal of Broadcasting & Electronic Media*. 1999, Fall, 469.

secondarily, by presenting calm messages with fast editing (22 or more cuts per minute).[107]

Looming: Media presentation is another element often neglected in mass communication research: screen size for television programming has produced significant effect size differences between 2- , 13-, and 56- inch screens. Comparative studies on the efficacy of movie screens has not been conducted; this is unfortunate given both the attentional focusing of screening room environments and the increasing mass-distribution of commercially produced documentary cinema.

Lang, Reeves, Kim and Tatar have found that liking and disliking of characters presented increase in intensity with the increase of screen size. In addition, research participants report enjoying media screenings more on larger screens, and display increased emotional valence in response to the media artifact. On smaller screens (such as the ubiquitous cell phone), media images are concentrated into a smaller area, reducing the percentage of the image that is outside of the foveal visual spectrum. The converse of this is that on larger screens, more of the image is displayed outside of the foveal field, and peripheral vision allocates a greater cognitive processing load to visual stimuli that is moving or otherwise novel.[108]

The cognitive response to larger screens may include an increase in attentional allocation due to looming or the novelty of the larger than normal image.[109] The

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[107] Lang et. al., 348.
[108] Livingston and Hubert. Prewett-Livingston, Amelia J.; Feild, Hubert S.; Veres, John G., III; Lewis, Philip M. "Effects of race on interview ratings in a situational panel interview." *Journal of Applied Psychology*. Vol. 81, No.2, Apr 1996, 62.
[109] Lang, A; Reeves, Byron; Kim, Eun Young; Tatar, Deborah. "The effects of screen size and media content on attention and arousal." *Media Psychology.* 1999. Vol 1, 52.

increased attentional load may also be due to the burden of visually searching a much larger field, requiring greater effort on the part of the viewer.[110] Both arousal and attention have been demonstrated to increase recall of media messages; this may explain some of the difficulties encountered by marketing professionals when trying to utilize social media and the Internet for marketing purposes.[111]

5.3 Visual Analysis of Media

The stimulus provided by the media is itself the primary attractor of consumption. The argument presented in this chapter is that to ignore the specific characteristics of the medium while attempting to analyze the effects of the medium is a mistake, particularly in reference to film and television, which capitalize on the visual capabilities of the human brain. The functional response in brain cognition to media stimuli cannot be discounted when seeking to determine the mechanism by which an effect is produced. In this chapter a basic summary of the visual mechanisms at play during media consumption has been provided.

For those who wish to obtain a productive methodology of media analysis, a focus upon the production values and characteristics of the media vehicle under analysis is necessary, as is an understanding of the pre-conscious and conscious responses to the media production techniques. In preparing to conduct an experiment designed to obtain an effect size from one or more media messages, coding of the production elements of the

[110] Wolfe, J. Guided Search 2.0: a revised model of visual search. *Psychonomic Bulletin and Review.* 1994, Vol 1, 202-238.
[111] Lang, A; Dhillon, K; Dong Q. "The effects of valence and arousal on television viewers cognitive capacity." *Journal of Broadcasting and Electronic Media.* Vol. 39, 313-329.

media vehicle, in addition to the traditional coding of content (i.e.: language, nudity, violence) is an appropriate first step.

Chapter 6: Auditory Cognition

For 36,000 years, humans have performed music.[112] It is theorized that this activity allows humans to build social relations, through participation in performance and as audience members.[113] Whether due to the psychological associations with the musical stimuli, the physiological effects of the music, or the social associations with music as a platform for shared interaction, music is clearly one of the fundamental art forms practiced by humans. As a result, attempting to analyze a media artifact without incorporating an analysis of the auditory portions of the artifact will result in only a partial assessment of the effects of the media.

Music in particular encompasses time as an element both in music production and in music perception. Musical cues used in performative media will encode timing as an element within the artifact. As a result, the information that is received by viewers may encompass particular and distinct concepts of time passage, urgency, and other qualities related to the tempo of the sound track. A review of the research that has been conducted on sound in relation to media and cognition follows.

As the body of research addressing the processing of language (speech) is immense, and language transmitted via media is processed in the same manner as language processes outside of media, this topic will not be addressed in this chapter. Instead, this chapter will focus on those items that are particular to media artifacts, such as music and ambient sound in media vehicles.

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[112] Scothern, P.M.T. *The Music-Archaeology of the Palaeolithic Within Its Cultural Setting.* Unpublished Ph.D. thesis, 1992. University of Cambridge.

[113] Escoffier, Nicolas; Sheng, Darren Yeo Jian; Shirmer, Annett. "Unattended musical beats enhance visual processing". *Acta Psychologica.* Vol. 135. 2010. 12

6.1 A summary of hearing function

Cognitive science breaks down hearing function into three major systems. The *peripheral system*, consisting of the transit from the outer ear to the cochlear nerve, will not be addressed in this chapter, as the focus of this discussion is on brain response to stimulus. Auditory stimulus follows two major pathways in the brain. *The primary processing pathway* consists of processing ascending to the cortex, descending from the cortex, and parallel pathways across cortical sites.[114] The *central cortical system* encompasses the core, belt, and parabelt regions.

The afferent pathway: The ascending pathway transfers sound stimulus from the peripheral system to the cortex. As the stimulus travels along this path, the data is coded and recoded for meaning as it travels from the cochlear nucleus to the lateral lemniscus, to the inferior colliculus, the thalamus, and to the auditory cortex. The primary function of this pathway is to combine input from both ears and to localize the sound stimulus being received (that is, to place sound sources in reference to the head).[115]

The efferent pathway: The descending pathway transverses the cortical and subcortical pathways to the peripheral system and aids in selecting specific sounds in the environment, aiding attention, and filtering out those noises which are not important to the hearer, while strengthening the input from those stimuli that are of import. There is not a great deal of information about how this works, however it is worth noting that both the afferent and efferent pathways are connected via the corpus callosum in each

[114] Baars and Gage. 190.
[115] Baars and Gage. 191.

hemisphere, and cortico-cortical pathways integrate auditory stimulus with working memory, stored memory, knowledge, and other systems.[116]

The *auditory cortex* is the center of auditory processing, and encompasses the core, belt, and parabelt regions.[117] This is the portion of the brain that allows for the identification of music, specific voices, and other perceptual functions. The thalamus sends signals to the core, which in turn send the information on to the lateral belt areas of the brain. Area A1 assigns basic properties to sounds, and along this belt, more specific processing of individual sounds occurs. This area of the brain is located within Heschl's gyrus, which is notable for its variation in size and location across individuals, making the identification of this portion of the brain difficult in imaging studies.[118] Just behind Heschl's gyrus is the planum temporale, which is thought to decode language.[119] The planum polare is also a part of the core, but little is known about this area. Behind the planum polare is Broadmann area 22, which Wernicke theorized as a language processing center, rather than an auditory area.[120] Both sides of the brain contain large areas for processing sound from the opposite ear, and smaller areas for processing sound from the near ear.[121] These areas are critical in locating sound in relation to the head, and processes sound location much faster than speech comprehension.[122]

The auditory system combines sensory processing with conceptual knowledge, allowing the combining of a recognizable sound with the image or feel of the object that

[116] Ibid., 192.
[117] Ibid.
[118] Ibid., 194.
[119] Ibid., 193.
[120] Ibid., 196.
[121] Ibid., 195.
[122] Ibid., 199.

makes that sound, such as a phone or airplane.[123] This is a learned process that accrues over a lifetime, leading to increasingly complex associational networks. Recognized and unrecognized sound activates the superior temporal gyrus, while the superior temporal sulcus and middle temporal gyrus are activated only by recognized sounds. The latter areas overlap with the visual processing centers and semantic systems.[124]

The superior temporal sulcus and the superior temporal gyrus activate more widely in response to words than to tones, indicating that these may be primary centers in language processing.[125] During sleep the auditory system continues to process sound, however, sleeping cognition of auditory stimulus does not distinguish between speech and tone in the auditory cortex.[126] However, hearing one's name called during sleep will activate the middle temporal gyrus, frontal lobe and amygdala, waking the sleeper.[127] Imagined sound will activate the same areas of the brain that heard sound activates, implying that there is a system of auditory imagery (representation of sounds) that share the same processing centers as heard sounds.[128]

6.2 Auditory cognition of media

Variability in pitch, timing and loudness: Juslin and Madison's study on variability established that recognition of the emotion cued by music was related to variability across specific musical elements. Fear is recognized through timing variability

[123] Ibid., 202.
[124] Ibid., 203.
[125] Ibid., 211.
[126] Ibid., 219.
[127] Ibid., 220.
[128] Ibid., 221.

in music, Variability in the articulation of the performance of music cues sadness, variability in the loudness of music is required to cue anger, and variability of both timing and loudness cue happiness in response to music.[129] These variances refer to interpretive variances (intentional) on the part of the musician, rather than unintentional variation (mistakes) made during performance.[130] In contrast, Maslin found that articulation *patterns* increased perceptions that the music was happy, while perceptions of the music as sad or solemn decreased. Timing patterns created perceptions that music was complex, fearful and tense, while decreasing perceptions that the music was beautiful, solemn, happy, sad or tender. Loudness patterns created perceptions that the music was angry, complex and expressive, and decreased perceptions of beauty in the musical piece.[131]

Ambient noise and sound effects: These auditory cues place action within a specific location or timeframe. The sound of crickets will indicate that the action is taking place in the evening, and outside of urban areas, while sirens often indicate an urban location. As auditory sounds are linked to visual memories of the object creating the sound, these cues may concretely construct a representation of the locale for media viewers.

Character and motivation: Boltz found that viewers assumed eventual negative actions on the part of characters in scenes where characters enacted ambiguous action sequences (such as murder, incest, or theft) when accompanied by negative music, and

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[129] Juslin, P.N. and Madison, G. "do listeners use timing patterns to decode the emotional expression of music performances?" *Proceedings of the fifth International Conference on Music Perception and Cognition,* 336.
[130] Juslin and Madison, 336.
[131] Madison, G. "Properties of expressive variability patterns in music performances." *Journal of New Music Research.* Vol. 29, No. 4, Dec 2000, 341.

comparatively positive future actions on the part of characters (falling in love, living happily ever after) when positive music accompanied the scene. This study used the method of asking participants to create a future storyline, so the association with the music at the time of story creation may have been increased by creative impulses on the part of the participants, emphasizing the relevant characteristics evoked by the accompanying music.[132]

Affect: Boltz found that music emphasized the existing affect of the film, increasing positive affect in both positive and negative action sequences when music rated as containing a positive affect was played in conjunction with film clips, and increasing negative affect in both positive and negative action sequences when accompanied by music rated as evoking negative emotion, compared to no music conditions.[133]

Memory: Boltz found that memory of set dressing elements in the scene were remembered with greater accuracy when the music accompanying the clip matched the positivity or negativity of the associations with the set dressing item. For example, participants remembered items such as flowers, candles, and church alters during the positive music condition and items such as tombstones and deserted alleyways during the negative music conditions.[134] In general, the positive and negative music condition

[132] Boltz, Marilyn. "Musical Soundtracks as a schematic influence on the cognitive processing of filmed events." *Music Perception: An Interdisciplinary Journal.* Vol 8. No. 4. Summer 2001, 440.
[133] Boltz, 437.
[134] Boltz, 442, 452.

participants demonstrated an overall increase in memory of set dressing items compared to the no music condition participants.[135]

Attention: Olivers & Nieuwenhuis found that music decreases blinking, increasing attention to visual stimuli, which corresponds to the findings of Escoffier, Sheng and Shirmer, who theorize that musical performance synchronizes participants, and simultaneously synchronize attention, altering the natural variations in attentional allocation to match the rhythm of the performance, cueing increased attention at points corresponding to heightened musical stimulus.[136]

Arousal: Vettehen, Nuijten, and Peeters found that background music inserts during sensationalized news programs slightly reduced emotional arousal in viewers, which was contrary to the expectation of the study.[137] The type of music cue used as background was chosen by the programs (as broadcast) and this effect may be a result of poor music choice, as the auditory stimuli examined is not detailed in the article.

Visual processing: Escoffier et al have demonstrated that when exposed to an auditory beat that is felt but not heard, syncopation has an effect upon visual perception. Visual stimuli presented in synchrony with felt rhythm increase perception of visual cues, and harmony cues contrasted with disharmonic cues also increase visual perception.[138] In both cases, the study focuses on the effects of attentional allocation to the auditory

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[135] Boltz, 444.
[136] Olivers, C. N. L., & Nieuwenhuis, S. "The beneficial effect of concurrent task-irrelevant mental activity on temporal attention". *Psychological Science*, Vol. 16, No. 4, 2005. 265–269.; Escoffier, et al., 12.
[137] Vettehen, Paul Hendriks; Nuijten, Koos; Peeters, Allerd. "Explaining Effects of Sensationalism on Liking of Television News Stories: The Role of Emotional Arousal." *Communication Research.* Vol. 35, No. 3, June 2008, 328.
[138] Escoffier et al., 15.

stimuli and inattention, and finds that attention does not affect the effect of the auditory stimuli upon visual perception.[139]

Audiovisual mirror neurons: Marco Iacoboni has demonstrated that audiovisual mirror neurons function similarly to visual mirror neurons. For example, the sound of tearing paper will trigger activation in the mirror neurons accompanying those muscle groups activated when an individual tears paper.[140]

6.3 Auditory analysis of media

As the conscious portion of hearing function appears to be limited to attentional control in filtering out desired stimulus from the cacophony of ambient noise, the emotional, attentional, and physiological effects of music are likely to be processed unconsciously. In effect, if these processes and the related inferences are handled without conscious volition or rational filtering, then any media artifact that contains musical cues must include sub-rational stimuli for viewers. As a result, in order to effectively analyze the effect of the artifact, the characteristics of the sound elements must be analyzed for impact upon the viewer in order to analyze the media stimulus in its entirety.

[139] Escoffier et al., 16.
[140] Iacoboni, 201.

Chapter 7: Cognition and Attention

When attempting to study the conscious and unconscious effects of media upon viewers, it is helpful to have an idea of what actually constitutes conscious and unconscious cognition, and how they interact. This chapter summarizes research on these processing states.

7.1 Conscious Cognition

The question of what exactly consciousness is has yet to be fully addressed within cognitive science and neuroscience. Many researchers argue that we may in fact not be able to appropriately address this question, due to the experiential constraints of our own individual consciousness.[141] Several theoretical frameworks have been suggested for the exploration of consciousness on differing levels, including *primary consciousness* (the immediacy of experience), the *remembered present* (conscious thought about the stimuli received as primary consciousness), *and higher-order consciousness* (abstract thought, retrieved memory, imagination).[142]

The concrete difference between experienced stimuli (sensory-motor thoughts) and memory, conscious thought, or imagining, lies in the lack of outside stimuli. This distinction may appear to be simplistic, but functionally the difference between *primary consciousness*, which is the immediate experience of the present, and conscious cognition lies in this difference. The process by which stimuli becomes accessible to the conscious mind involves two cognitive steps, the automatic evaluation of stimuli received from the

[141] Eberhard, 26.
[142] Eberhard, 31.

hippocampus, and a conscious response to the sensation of "feeling" the stimuli.[143] This process is often conceptualized as a "flow through" dynamic, in which the sense of and experience floods awareness, and then is consciously thought about. This differential is referred to as the "mind/body dichotomy."[144,145] The conscious response to sensory qualia is then itself the spur to action, instinctive or intended, depending upon the stimuli received from the automatic processing centers of the brain. Startle responses are a primary example of instinctive response, while acting to catch a falling object is likely to follow upon conscious cognition of the consequence of the object hitting the floor.[146]

The study of social cognition has allowed for a further operationalization of the consciousness question, which will be addressed in section 8.3. Experimental research has delineated the differences between conscious and unconscious mechanisms, indicating that research on conscious versus unconscious effects requires careful manipulation and measurement of the specific origin of motivating factors. Conscious cognition is primary to behavioral decisions when study participants are aware that an unconscious prime has been administered, study participants will automatically correct

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[143] O'Reagan, J. Kevin. "Explaining what people say about sensory qualia." *Perception, Action, and Consciousness: Sensorimotor dynamics and two visual systems.* Eds. Gangopadhyay, Nivedita; Madary, Michael; Spicer, Finn. Oxford University Press: Oxford. 2010, 36-41.

[144] Marr, D. *Vision*. San Francisco: W.H. Freeman. 1982.

[145] Wilson, Robert A. "Extended vision." *Perception, Action, and Consciousness: Sensorimotor dynamics and two visual systems.* Eds. Gangopadhyay, Nivedita; Madary, Michael; Spicer, Finn. Oxford University Press: Oxford, 280-281.

[146] Joordens, Steve; Wilson, Daryl E.; Spalek, Thomas M.; Paré, Dwayne E. ". Turning the process-dissociation procedure inside-out: A new technique for understanding the relation between conscious and unconscious influences. " *Consciousness & Cognition.* Vol. 19, No. 1, March 2010, 280-281.

for influences upon behavior when aware that they have been exposed to such an influence.[147]

Research has also demonstrated that study participants are aware of existing social attitudes, even if they are not aware of the source that created these attitudes. As a result, while participants may report that they have automatic racist responses, consciously they are aware of these automatic responses generated by the unconscious, and intentionally correct for them. This implies that "social desirability" may not in fact be a dishonest response bias, but a form of self regulation, which translates into action; automatic responses including racism do not imply habitual behavior that is racist, but rather a pre-established social cognition platform that individuals are aware of and consciously mitigate against in practice.[148] Therefore, in measuring for racism or homophobia, it is necessary to investigate not only unconscious attitudes as a measure of behavior, but also degrees of awareness of pre-existing unconscious attitudes.[149]

As consciousness is a result of attention, there is a limit to the number of items that can be consciously attended to at one time. As a result, the number of relevant factors that can be considered may be less than the total number of relevant factors, leading to poor decision making.[150] Conscious thought is likely to be influenced by expectations and

[147] Uhlmann, Eric Luis; Pizarro, David A.; Bloom, Paul. "Varieties of Social Cognition." *Journal for the Theory of Social Behavior.* Vol. 38, No. 3, September 2008, 298.
[148] Uhlman, 309.
[149] Baars, Bernard J. and Franklin, Stan. "An architectural model of conscious and unconscious brain functions: global workspace theory and IDA." *Neural Networks.* Vol 20, 2007, 187.
[150] Aarts, Henk; Dijksterhuis, Ap; Custers, Ruud. "Automatic normative behavior in environments" the moderating role of conformity in activating situational norms." *Social Cognition.* Vol. 21, no. 6, December 2003, 454.

assumptions, constructing a preference that may not reflect reality.[151] It is theorized that stereotype construction, for example, is based upon conscious thought, as relevant characteristics are minimized within the thought process. These few characteristics then become part of the associated memory/experience store, and may be activated unconsciously.[152] In part, this is why consciousness of prejudicial attitudes creates stereotype modification: relevant information is re-evaluated in response to the actual situation and compared to personal goals, which in turn will cause behavior to be based upon rational processes leading to desired outcomes. Conversely, individuals lacking awareness of or motivation to mitigate stereotyping will rely upon existing stereotypes and attitudes.

7.2 Unconscious cognition

The unconscious is that portion of our mind that is "largely inaccessible at any given time" according to Uhlmann, Pizzarro and Bloom.[153] The unconscious, however, does influence judgment and behavior as well as attitudes.[154] Uhlmann et al. discriminate between two types of unconsciousness: *influence unconsciousness* and *unconsciousness of the mediating state*. *Influence unconsciousness* is a lack of conscious awareness that a situation, specific stimulus, or experience is influencing current behavior. *Unconsciousness of the mediating state* refers to situations in which individuals are not aware that they are behaving or feeling a certain way.

[151] Aarts et al., 457.
[152] Aarts et al., 458.
[153] Uhlmann, 293.
[154] Uhlmann, 310.

Taken together, these two types of unconsciousness provide a clear delineation of causality in motivational stimuli. If, for example, an individual is not aware that they have been primed to behave aggressively, they may be aware that their behavior is aggressive, and may seek to control the aggressiveness of their presentation. However, if the individual is not aware that they are behaving aggressively, then mitigating behavior consciously is not possible. The unconscious can also provide benefits in cognitive function: Complex decisions are handled more efficiently by the unconscious, and often more effectively.[155]

Attention is the distinguishing feature between conscious and unconscious thought.[156] Due to a higher capacity for information processing, Djiksterhuis et al have found that when study participants are distracted and prevented from consciously processing information, stereotype activation does not take place, as the unconscious decision-making process is not reliant upon minimizing relevant characteristics to be considered.[157] However, consciously deciding to make an unconscious decision is also problematic. Delaying decision-making until all relevant information has been obtained tends to produce a conscious-driven expectancy, which then filters the information accepted as relevant.[158] Djiksterhuis et al. suggest that the best way to make unconscious decisions may involve allowing for more time to pass (while other activities are attended to) than a rational thought process would require. In other words, it may prove beneficial when making a complex decision, to obtain as much information as possible while

[155] Aarts et al., 457.
[156] Aarts et al., 457.
[157] Ibid., 459.
[158] Ibid., 460.

attending to other tasks, and then to continue attending to other tasks while waiting for the slower incorporation of information into the unconscious, before making an "instinctive" decision.[159] This recommendation is based in part upon the evidence that integrating information into the unconscious takes longer than conscious consideration, but once information has been processed into the unconscious, it is activated more quickly than in conscious thought.[160] However, unconscious thought is goal directed. The brain stores and organizes information that is relevant to future action. This is a basic difference between information that is attended to but not processed consciously, and information that is ignored and lost.[161]

Unconscious thought is not omnipotent. Certain considerations, such as money, are best dealt with rationally. For example, the unconscious does not perform arithmetic, nor is value recognition in relation to words perfect. For example, while the unconscious may be able to effectively determine which of several apartments is the better place to live, the unconscious may not be incorporating information about affordability[162]. In experiments where "bad" was contrasted with "not good", the unconscious will tend to translate "not good" into "good", while in fact "not good" may be identical in meaning to "bad."[163] If such differences are attended to during information gathering, this may be mitigated, but in general, unconscious thought is best for processing generalities, rather than specifics.[164]

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[159] Ibid., 462
[160] Ibid
[161] Ibid., 464.
[162] Aarts et al., 464.
[163] Ibid., 460.
[164] Ibid., 461.

Chapter 8: Media effects upon behavior

To date media effects have been studied from the perspective of mass stimulus applied to a mass audience. This approach assumes that consumers share primary identity associations, and a homogeneity of experience, a problematic assumption. This chapter provides a brief summary of priming research to date, and examines the problems associated with this form of research as it is currently practices within psychology. The primary argument within this chapter is that the individual needs to be put back into media effects research, and the behavioral results of media consumption should be examined in light of personal frames of reference.

Priming research is based upon the theory that by providing a media artifact that references a particular idea, stereotype or ideology, the accessibility of this concept will be increased. By increasing the accessibility of the relevant concept, the likelihood that behavioral or attitudinal effects relating to the idea, stereotype or ideology will be instituted in post-priming tests is increased.

8.1 A summary of priming research

Media priming is "the short-term impact of exposure to the media on subsequent judgments or behaviors".[165] In experimental situations, priming has generally been demonstrated to last for a brief time, from milliseconds to a maximum of twenty minutes, although it is generally agreed that priming effects deteriorate after a maximum of six minutes. Media priming may function differently, due to the constant inundation of the

[165] Bargh, John A. "What have we been priming? On the development, mechanisms and ecology of non-conscious behavior." *European Journal of Social Psychology.* No. 36, 2006, 152.

subject by mediated ideologies, creating greater cognitive accessibility to frequently incorporated themes. For example, if media represents the social stereotype that members of the Black community are more likely than others to suffer from poverty, then public response to welfare concerns may depend upon the majority's desire to rectify a situation that has been presented as "normal" or "not applicable to people like me."[166]

Violence, political messages, and stereotype solidification are areas in which priming research has been conducted. Since the early 1990s research into media-generated and supported stereotypes has become increasingly prevalent, an area which this chapter will explore. Rape myths, racial stereotyping, social policy support, empathy to disaster victims, gender discrimination and in-group/out-group interactions will be examined.

Commercials, music, film, entertainment television, newspapers, broadcast news, and digitally conveyed news media have all been demonstrated to carry priming messages. This type of research is vital in a society that bases its most fundamental values upon equality between people, and should inform the standards employed by media outlets, as although media outlets often tout the fact that they inform society, it is often news media that creates the mental database used by the public in everyday interactions.

In priming stereotypes, results of stereotype activation experiments have been remarkable in many cases. For example, subjects primed with the concept of old age have been demonstrated to walk more slowly upon exiting the room in which the prime was

[166] Bargh, 164.

administered, compared to control subjects.[167] This physiological effect demonstrates the cognitive power of the traits associated with social sub-groupings, and the strength of unconscious behavioral effects that social stereotypes may have upon subjects. Race-based and gender-based norms may be especially virulent when a member of a social sub-group fails to behave in manner that is expected of them by the subject, leading to a negative association with that sub-group member, even if no threatening or inappropriate behaviors have been evidenced.

In-group identification is the result of sub-group members' identification with other members of the sub-group. Research has demonstrated that individuals who identify with a sub- group will act "to protect the status and interests of that group".[168] In a media environment in which White Americans are perceived to be an in-group, protecting the interests of that subgroup may lead to discrimination against those deemed "Other" by members who identify strongly with the social sub-group. This is perhaps an explanation of the strength of social objections to illegal immigrants in the U.S. who originate from Mexico, while little attention is paid to the number of illegal Canadian immigrants. Theoretically, the same arguments against illegal immigrant status apply, but Canadians are perceived as in-group members.

Similarly, if a member of a marginalized community has been exposed to mediated messages glorifying the aggressive, criminal behavior, adhesion to this mode of behavior may be displayed, especially in situations where the in-group member perceives

[167] Roskos-Ewoldson, 76.
[168] Smith, Stacy L., and Amy D. Granados. "Content Pattern and Effects Surrounding Sex-Role Stereotyping on Television and Film. *Media Effects: Advances in Theory and Research* 3rd Ed. Eds. Bryant, Jennings and Mary Beth Oliver. New York: Routledge. 1994, 331.

a social slight, discrimination, or threat to either racial or gender norms. Social identity theory and self-categorization theory have both postulated a link between the individual's personal commitment to in-group norms and judgments associated with out-group members.[169] Because of this link, experimental studies have demonstrated that "exposure to stereotypical characterizations of out-group races/ethnicities is particularly likely to provoke more unfavorable/stereotypical judgments of those out-group members and more favorable evaluations of in-group members."[170]

Media framing refers to the process by which the media message is crafted, and is a measure of the shape of the media message, the output of the media organization. *Framing* may also refer to the audiences' perceptual frames, or preconceived notions.[171] The major conceptual difference between framing research and priming research is that framing incorporates the structural construction of the message while priming focuses on the reception of the message. Therefore framing studies have been included in this analysis as the relevance of the message form and subtext to the alteration in the subject's personal perspective is comparable to the effects of the priming research also presented herein.

Hitlan et al[172] conducted an experiment on the priming effects of sexually explicitly media upon gender harassment behaviors in men, both overt and covert. The experiment was conducted utilizing 280 men who completed the Modern Sexism scale to

[169] Smith et al., 331.
[170] Ibid., 332.
[171] Scehfele, Dietram A. "Framing as a Theory of Media Effects." *International Communication Association* 1999, 106.
[172] Hitlan, Robert T.; Pryor, John B.; Hesson-McInnis, Matthew S.; Olson, Michael. "Antecedents of Gender Harassment: An Analysis of Person and Situation Factors." *Sex Roles*. Vol. 61. 2009, 794-807.

test for attitudes towards women.[173] These men were then paired into dyads with similar scores on the Modern Sexism scale. Groupings fell into three categories: Low Sexism, Mean Sexism, and High Sexism. The dyad groupings were divided in half, with half exposed to the priming media, and the other half exposed to the control media. A twelve minute segment of the film *Show Girls* with no nudity was used as the sexual prime, while a twelve minute segment of an anti-censorship film produced by the NEA was used as the control. All participants then filled out a questionnaire on censorship, and self-reported arousal levels both before and after this questionnaire.

Dyads were then given interview questions (purportedly for another experiment) and instructed to select interview questions for a female job interviewee. The questions had been constructed and rated by an independent group of students as to appropriateness of content, and at least two questions in each of the four categories were rated sexist and highly sexist. Dyads were instructed to select questions from each category, for a total of eight questions. It was possible to select the eight required questions without selecting any of the sexist or highly sexist questions. The results of this experiment demonstrated little change in behavior on the part of Mean Sexism and High Sexism dyads. Low Sexism dyads, however, demonstrated significant changes in choice of highly sexist questions in the experimental group, compared to the control group.

The result of Hitlan et al's experiment has interesting implications. It is unclear whether sexual priming has a greater effect on the behavior of those who normally do not espouse sexism or if sexual priming relieves men of the need to conform to their prior

[173] Hitlan et al., 803.

belief of societal norms, providing a new standard which is in operation due to the prime. Social cognition theory would tend to imply the latter.

The results of the James D. Johnson et al[174] experiment on racial attitudes and support of social policies utilizes empathy ratings to gauge the effect of race upon attitudes towards persons-in-need.[175] 191 White college students (F=124; M=67) were told that they would be participating in an experiment on how people respond to disasters. Several written articles about 'life disasters' were read by participants one of which was an article about Hurricane Katrina. Participants then self-reported empathy levels, and were administered either the prime or the control media: pictures of Hurricane Katrina survivors taken from mainstream media sources.

The prime condition involved exposure to photographs of Black survivors, while the control segment viewed photographs of White survivors. Pictures had been previously rated by another group of students, and correlated into the following categories in both racial conditions: Looting, Non-looting, (but gathering materials for survival) and Control (sitting in the Superdome awaiting Red Cross assistance). Participants were then asked to respond to two questions that assessed the participants' beliefs regarding the level of financial aid that should be administered to the victims, and the degree to which the government should be responsible for the welfare of the victims during the recovery period. Differences between empathy levels were higher for White victims across all

[174] Johnson, James D., Nelgy Olivo, Nathan Gibson, William Reed & Leslie Ashburn-Nardo. "Priming media stereotypes reduces support for social welfare policies: The mediating role of empathy". *Personality and Social Psychology Bulletin* Vol 35, No. 4, April 2009, 463-476.
[175] Johnson et al.

activity primes, with White victims pictured as looting receiving more empathy than even the Black victim control condition.

James D. Johnson et al performed a second experiment in the same year to analyze the effects of music as a prime for race and social policy attitudes.[176] In this second experiment a group of students categorized different music into three categories: sexual rap (explicit lyrics containing descriptions of sex acts), non-sexual rap (containing no description of sex, and emphasizing love), and the control grouping, non-rap music that emphasized love.

Study participants were exposed to fifteen minutes of music under the pretext that they were undergoing a memory test, and instructed to attempt to recall as many lyrics as possible. Participants were then asked to write down as many lyrics as possible in three minutes. Participants then proceeded to a "second experiment" in decision making skills, in which they were asked to read a letter from a person-in-need, in this case a female student who had inadvertently become pregnant due to a prescribed medication interfering with her birth control measures. The person-in-need was characterized as either Black or White, depending upon the experimental group.

Students then rated their empathy for the young woman who had written the letter, and their support of policy for addressing this situation. Interestingly, the non-sexual rap category produced the most sympathy for the situation in which the person-in-need found herself. Study results show that empathy for the young black woman was *higher* than empathy for the young white woman in this condition. In both Black and White conditions, the control musical prime produced lower levels of empathy than the

[176] Ibid., 473.

non-sexual rap prime. However, the sexual rap prime produced lower levels of policy support in the White condition, and no change in the degree of empathy. The sexual rap category did produce dramatic differences both in policy support and empathy in the Black experimental condition.

John D. Richardson[177] conducted an experiment involving affirmative action and racist attitudes. A pre-test was administered consisting of three interracial attitude scales: the White guilt scale, the belief in White privilege scale, and the modern racism scale.

Four 'newspaper editorials' ostensibly from the *St. Louis Post Dispatch* were administered as priming materials. These articles were formatted to appear as though they had been printed off the newspaper's official website. The headline, first paragraph and final paragraphs were identical between all four test conditions, with only the middle portion manipulated for test purposes. All four editorials were on the topic of affirmative action. The four conditions were an argument supporting diversity, an argument for remedial action (increasing diversity), and a combined remedial/support of diversity condition. In the control condition only the headline, first paragraph and closing paragraph were included.

Test participants were then administered a pro-Black and anti-Black attitude scale, and asked to respond to a questionnaire about minority enrollment and affirmative action at the University that they attended. The results of this experiment demonstrate the influence of editorial framing upon reader attitudes towards out-group members and social policy. The researcher was surprised that attitudes toward affirmative action did

[177] Richardson, John D. "Switching social identities: The influence of Editorial framing on reader attitudes toward affirmative action and African Americans." *Communication Research.* Vol. 32, No. 4. August 2005, 503-528.

not alter as a result of prime condition; however, attitudes towards issues affecting minority students did alter significantly.

8.2 Problems with priming

Media priming research to date has been remarkably haphazard in relation to experimental conditions, control mechanisms, the type of stimulus used, and the time differential between administration of stimulus and administration of the media effects test.

One of the main difficulties associated with an overview of priming research is the inconsistency of experimental conditions between differing studies. For example, although media-priming research has been conducted, most studies do not include the time lapse between the prime administration and the testing sequence, nor is the priming effect re-tested with an eye to determining the length of the effect on the subject. Although the size of the effect has been demonstrated to increase with the intensity of the prime, and recency has been demonstrated to increase the size of the priming effect, the tail-off period of behavioral influence has not yet been concretely determined.[178]

Another problem with priming research is subject selection, which is largely limited to undergraduate students. Hess, Hinton and Statham conducted a study in which age counteracted priming, suppressing the prime in subtle prime conditions.[179] This implies that both experience base and identity solidification may affect the effects of

[178] Roskos-Ewoldson et al., 80.
[179] Hess, Thomas M.; Hinton, Joey T.; Statham, Jill A. "Explicit and implicit stereotype activation effects on memory: do age and awareness moderate the impact of priming?" *Psychology and Aging*. 2004, Vol. 19, No. 3, 495–505.

primes. As a result, while student response to priming stimuli may create a nice, large effect, these data may lack external validity.

The administration of either an attitudinal pre-test or a post test but not both was another issue displayed in priming research. Awareness of existing attitudes was not obtained in any of the studies examined. The reasoning behind categorizing this trend as problematic is discussed in more detail in the following section on social cognition.

Personal identity was not assessed in any of the priming studies examined, and the majority of the studies excluded members of racial minorities as participants, but invisible minorities were neither assessed for nor excluded. This is one of the overarching issues with priming research; as if the stimulus actually activates existing stereotypes, it should do so across racial, gender, and marginalization categories. The exclusion of certain minorities but not others also creates an issue; if it is determined that minority identification will affect experimental outcome, then study participants who should have been excluded were included. If minority status will not affect experimental outcome, then why were racial minorities excluded?

Control mechanisms also appeared to be problematic for priming research. In general, primes that produced a level of arousal were utilized, while control mechanisms were generally chosen which did not produce arousal. Even in the situations where arousal levels were allowed to diminish, this may provide a confound: arousal increases memory. Comparing experimental situations across equally arousing conditions on different arousal vectors *and* across no arousal conditions may produce somewhat different results.

Repeated exposure to priming effects may also strengthen the effect of primes, although to date this theory has not been tested over a significant period. In order to test this hypothesis, experimental subjects would need to be isolated from all media messaging, and experimental media would have to be constructed to control the content to which the subjects were exposed. This scenario poses obvious difficulties for the experimenter, not least, the expense associated with conducting an experiment of this type. Recent research has, however, determined that behavior toward social categories (social grouping by similarity of physical characteristics) can be primed, although priming a social category does not determine behavior, a most fascinating conundrum.[180]

8.3 Social cognition

Social cognition incorporates *empathy*, *mind-reading*, *intentionality*, and *intersubjectivity*. *Empathy* is a concept in need of clarification in research. Translated from Latin, e*mpathy* can mean either "feeling inside" or "feeling with", and this is one of the primary problems in studies attempting to measure empathy.[181] Empathy may generally refer both to an individual feeling a *secondary* emotion, that is, an emotion prompted by another's experience or situation, perceived as *sharing* the emotional state of another, such as pain or grief. Conversely, empathy may refer to an emotion *felt* as the result of another's situation or experience, such as sympathy. These two emotional responses are not equivalent, although they may well be related. This distinction is rarely

[180] Jonas K.J. & K. Sassenberg. "Knowing how to react: automatic response priming from social categories." *Journal of Personal Social Psychology*. No. 90 (5) 2006, 714.
[181] Baar, 392.

made in priming or social research. The field of social cognition, however, is beginning to make inroads into the differences between these two states.

Mind-reading or *mentalizing* is the ability to frame our own perceptions in relation to the perceived mental state or expectancy of others. Mind-reading is a function of perceived similarities between individuals, and is likely to incorporate seen emotion as part of the process of estimating another person's mental frame. Mind-reading is the basis for attuning behavior to match social situations, particularly in situations in which a degree of negotiation between desired outcomes in required. [182] One of the primary differences in the social cognition approach to interpersonal interactions is the emphasis on others as subjective individuals with existing and changing mental states, as contrasted to the social psychology approach to others as sensory objects providing stimuli.[183]

Intention refers to the inner goal that is pursued during interaction, and encompasses desired representations of self and mutual goals, while *intersubjectivity* includes understanding of the intentionality, subjectivity, and goals of others.[184]

Increasingly social cognition is considered a mental model of the physical world, that is, a specific reproduction held in the consciousness of situations, responses, and procedures to elicit desired response.[185] Animal research has demonstrated that rats (when implanted with electrodes in their navigation centers for the tracking of brain activity) use a specific portion of the brain when traversing each section of a maze. When faced with an obstacle, the rat will look back the way it came, and the neurons related to

[182] Baar, 392.
[183] Ibid.
[184] Ibid.
[185] Mitchell, Jason P. "Mentalizing and Marr." *Brain Research.* 1079. 2006, 66-75.

that portion of the maze will light up. As the rat thinks about viable paths, the relevant neurons linked to each location will light up, suggesting that the brain may model the world around us in a very concrete manner.[186]

In social interaction, modeling of others depends upon the information that has been obtained previously about the individual or social categories to which the individual belongs. The purpose of research into social cognitive processes is intended to illuminate both the basic information individuals have obtained about others and the processes through which that information is transformed to address specific social situations.[187] Social cognition is used to judge which behaviors should be used in response to certain situations and also to estimate the mental frame currently in use by the individual or individuals with whom interaction is taking place.[188] Communication situations include both verbal and non-verbal communication, and mental frames include both overt and hidden mental states.[189] In the case of the latter, a similar social frame may be required in order to effectively communicate without words.[190] To date, studies appear to confirm that social cognition takes place in different areas of the brain than other cognitive processes, implying that social cognition is a separate mechanism, separated from general cognitive abilities.[191]

Therefore, the considerations of social interactions are different in creating a relational framework between individuals than in creating relational frameworks with the

[186] Van der Meer, Matthew. Redish Lab. Video.
[187] Mitchell, 67.
[188] Mitchell, 68.
[189] Ibid., 69.
[190] Ibid.
[191] Ibid., 71.

world in general, or the locational relation between individuals.[192] Mitchell et al have found that mentalizing (estimating the mental state) of others is dependent upon reflexive thought, in which the perceiver imagines how they themselves would feel in a certain situation, and then assume that the individual with whom they are interacting feel similarly. This inference depends on perceptions that the individual is similar to oneself; interactions with dissimilar others creates a maximum level of activity in the dorsal regions of the mPFC.

This indicates that social cognition varies in relation to the similarity or dissimilarity of the individual with whom interaction occurs.[193] Research has also found that the areas of the brain that handle social cognition tend to maintain higher levels of activity even during rest, implying that social cognition may be a continuous process, continued unconsciously while other processes are under way.[194]

[192] Ibid.
[193] Ibid., 72.
[194] Ibid., 72.

Chapter 9: A Combined Platform for Study

The theoretical framework presented here argues for the inclusion of measures of personal identity characteristics, measurement of the characteristics of communities of membership, assessment of media stimuli for specific relations to individual and community identities, and measures of awareness of pre-existing attitudes, in addition to pre- and post-test attitudinal measures.

9.1 A combined theoretical framework

As the individual is the basic minimum unit of a social group, the individual's perception of self is relevant to both self-identification and identification with others. As identity changes in reference to social situations, the social situation under review must be considered when framing experimental situations. Associating with one cultural subgroup over another may influence key factors in media perception, while the relation between the triggered subgroup association may also influence perspectives on relations between social groupings and with society as a whole. Determining the social context for the individual consuming media in relation to that media is required in order to obtain accurate measures of how the media is likely to be assimilated in real usage situations.

By placing the individual and identity associations at the center of media research, a deeper understanding of the influences of media and the effects of media upon society can be obtained, resulting in both more accurate data from media research and greater understanding of how culture itself functions both within media and outside of media.

The framework for researching media from a multidisciplinary perspective may appear too complex for practical purposes; however, suggested methodologies will be presented in the following section. Previous research into media effects has focused on a mass effect produced in consumers. This thesis challenges that perspective, arguing that media effect is a result of three human functions: 1) the response of the human brain to specific stimuli, 2) culturally coded representations of meaning, and 3) interactions between the self and society, interpreted through the lens of individual identity.

Humans have evolved to process information in certain ways, and the manner in which specific types of information is processed is linked inextricably to the response the stimuli produces. Media provides this stimulus and builds upon existing referential frameworks to construct a representation of reality that is emotionally, intellectually, and physiologically involving. As a result, consumption of media vehicles is on the rise, and is likely to continue to increase as more forms of interaction are facilitated by media access and availability. Relations between individuals and society are mediated both by the individual's approach to their own self-concept, and by the desired representation of self which an individual wishes to project. These identifications, in turn, are mediated by relational associations with cultural sub-groupings. Both intra-community identification and extra-community identification are affected by media representation in the social sphere. As a result, personal identity is likely to be influences by the representations of the subgroups with which they feel a commonality. In turn, assimilation of media ideologies is likely to be filtered through a framework of response (positive or negative) to the representation of collective identities within the media artifact itself.

By approaching the study of media through the process of personal and collective identity, cognition, and cultural mechanisms, researchers will be able to form predictions based upon the characteristics of the media itself, rather than basing predictions upon personal ideology. Through the use of cognitive science, researchers will be able to discriminate between conscious and unconscious assimilations of media stimuli. The primary benefit to this approach is the reduction of reliance upon theories such as "social desirability" which tend to assume that research subjects are dishonest in self-reporting effects and attitudes.

This combination of theories allows for a more accurate assessment of media effects and a more realistic approach to the collective effect of media upon society, as information on personal acceptance and rejection of ideologies will be collected. These statistics of basic response may then be combined with large scale analyses of media content, providing a valid overview of ideological transmission and a projection of the likelihood of mass effects.

9.2 Methodological platform

As the variations afforded by media artifacts are too numerous to be replicated as experimental series, the purpose of this chapter is not to lay out all of the potential experimental set-ups available, but instead to propose an orderly sequence of experimental studies which may yield information relevant to the analysis of varying media artifacts. As research in the cognition of media has largely focused on the technological aspects of editing, screen size, and emotional valence, an articulated series

of experiments addressing the more artistic elements within media messages may prove helpful to the analysis of the message in its entirety, and beneficial to both producers of media and academics researching the field.

Assessing the effects of specific production elements: As media itself may produce a response in viewers, the analysis of a mediated message can best be pursued through the analysis of the artistic and technological techniques employed in shaping the media artifact. Unfortunately, media is not received piecemeal by viewers; as a result, analysis of the specific techniques employed should be followed by analysis of the cumulative effect, both cognitively and emotionally, upon viewers.

Although an ideal experimental situation would be able to use participants from a wide range of ages, nationalities, and ethnicities, practically this is impossible. As a result, any effects research on media artifacts should be considered valid only for the age group and majority nationality participating in the experimental situation. Perceptions of media may differ radically depending upon the background experience of study participants.

In order to carefully delineate the responses to visual stimuli in media messages, a simple approach would suggest setting up a variety of scenes in which no color (or white) light is aimed at the actor from various angles, which can then be photographed and subjected to evaluation in an experimental situation. As lighting is not used separately from costume, make-up or body language, however, the effect size obtained by this series of experiments is likely to be minimal. Therefore, a sequence beginning with single-source lighting and progressing to traditional three-point lighting with varying high key

angles may prove the most productive. This sequence may then be compared to single source and three-point lighting incorporating a single color used in the key or fill, and then color combinations. The use of gobos (patterns) may also be useful based upon the vision research conducted upon cognition of partial images. As a fourth procedure, the color of the background may be changed to obtain any response changes, followed by the Photo-shopping of various scenes into the background, provided that the scenes make sense within the lighting scheme. Additional elements such as costume and music may then be added to obtain a relative measure of response changes to the overall production values of the experimental sequence. Basic body and facial expressions should be used throughout this series, consisting of common physical stances such as face and body neutral, stiffened, relaxed, hunched, and then be repeated with a smile, frown, etc.

The problem with this course of evaluation is that media artifacts outside of print rarely use media upon a still figure; the purpose of lighting design as a field is to sculpt the figure or face within the three dimensions, and often to convey alterations in the fourth dimension as well. As a result, professional lighting will encompass the blocking of the actor within a space, and the emotional qualities created or emphasized by lighting may have as much to do with the actor moving into and away from light sources as with the color and angles utilized in the design. Motion within the light beams may also carry stimuli that affect the viewers' perception of the emotion in a scene.

As a result, a more complex series of experimental stimuli may be needed to properly evaluate a fully articulated lighting design, incorporating scenery, costume, and make-up as well as acting. However, by analyzing the basic building blocks of visual

media, the most evocative elements may be determined, and subsequent experimental series may build upon this platform to good effect.

Ideally, analysis of viewer's response to these media artifacts will be analyzed by both the gender of the actor in the image, and the gender of the study participant. Socially relevant information may be obtained through information regarding the differences in response by gender to similar actions conducted by people of either gender. The response to variations in race, age, and social economic status (delineated by costume and make-up) may also yield interesting results regarding the emotional states attributed to others viewed through media artifacts. To that end, an experimental series mimicking different conventions from traditional media may also be beneficial: newscasters, politicians, religious leaders, soap operas, and other sources that use standard "looks" may be imitated to good effect. Sequences using ambiguous body language and verbiage may also be useful as a final sequence to this experimental platform.

Assessing the effects of media upon specific individuals: In order to fully explicate the interactions between media and the individual, and the individual within society, researchers must begin by explicating the elements within a media artifact in relation to individuals. This requires the coding of the artifact for ideology, representations of individuals and social subgroups, and the relation between those representatives. Individual research participants may then be asked to answer demographic questions and be assessed for both attitudinal frameworks and awareness of attitudes. This will allow for a clear understanding of how the media is likely to influence specific individuals.

Identity can be best be quantified over a specific spectrum of action, interaction, and need fulfillment. In personal interviews, open-ended questions regarding self-categorization of the subject in terms of specific characteristics or social groupings may be beneficial. Similarly, a survey created to obtain specific demographic information and sub-group associations may be used.

If the researcher is attempting to look at cultural influence upon a social group, and the subsequent influence upon the individual identity, perceptions of cultural characteristics must first be obtained from the subject. Second, characteristics of the social grouping (which may include stereotypes) must be obtained, followed by self-perceived individual characteristics. Subsequently, dissonance between individual and group identity should be examined to ascertain the individual's level of commitment to the group identity. Dissonance between the chosen grouping and the hegemonic culture is examined to delineate the sites of identity conflict in the subject's personal experience, and illuminate the areas in which the subject has adjusted individual identity in order to achieve their personal needs.

Identity can be ascertained along the same lines of inquiry by asking respondents to rate degree of agreement or disagreement with statements of nationalism, political and ideological identity, subaltern groupings, professional affiliations, and education (e.g.: I am a typical member of the Hispanic Community, I am a typical American). Supplementing these questions with queries designed to locate the respondent along an axis of commitment level will allow the researcher to obtain useful information as to the

general identifiers the individual has selected for themselves, and the strength of their attachment to this aspect of identity.

Assessing media impact upon society: By combing data on production technique effects with the effect level on individuals espousing specific identities, a rough estimate of demographic response to specific media artifacts may be obtained. Using this data as a basis for estimating the effect of a particular mass media artifact upon society as a whole, a cumulative assessment of the effects of multiple media vehicles on society can be obtained. While this will only be an estimate, it is likely to be far more accurate than the current measures in place. As additional research into media effects upon individuals is accumulated, broader and more accurate estimates may be constructed.

9.3 In conclusion

Media production is a complex process and media artifacts reflect the myriad processes used in creating them. The effect of media consumption upon the viewer and society is likely to be just as complex, calling for a complex approach in order to obtain accurate assessments of the causal relationship. In instances where this complexity of approach is simply not feasible, researchers need to be both aware of the possibility for failures in external validity, and open about such procedural failures when reporting research results.

In utilizing the theoretical and methodological platform contained in this thesis, a sufficient body of knowledge may eventually be constructed to aid in the eventual simplification of media research methodologies. At this point in time, however, too many

elements and factors remain unknown and unquantified, requiring a stringent and comprehensive approach to media research in order to clarify and articulate the specific mechanisms utilized in the process of media interpellation.

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