Relevance Theory and Constructed Female Nerdiness in CBS’s The Big Bang Theory

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1. Introduction

In the past decade, America’s nerd culture has exploded in the media with the emergence of several television shows depicting nerd characters. Programs such as BBC’s Dr. Who and CBS’s Numb3rs are not only shows with “nerdy” content, but the dialogue is centered around nerd lead characters (The Doctor and Charlie Eppes respectively). CBS’s The Big Bang Theory (TBBT), however, has the largest concentration of nerd characters on its show with six of the seven lead characters acting as nerds. While all of these nerd characters are academic and professional overachievers (all have either master’s degrees or Ph.D.s), two serve as the show’s hyper-nerds: Sheldon Cooper and Amy Farrah Fowler. The characterization of these hyper-nerds often takes common stereotypes of “typical” nerds and hyperbolizes them in order to create comedy. For instance, nerds are often considered brainy and intellectually governed; these hyper-nerds are characterized on an entirely different level where their nerdiness ultimately comes across as cold, distant, and socially inept. This social distancing of these two characters is most clearly indicated in their scripted language; through their language, the show’s writers further hyperbolize Sheldon and Amy’s nerdiness by portraying them as unable to communicate effectively in social settings. While some studies exist on Sheldon’s characterization of the hyper-nerd, none currently exist on Amy. Thus, the remainder of this study will focus on the creation of comedy through the instantiation of hyperbolic nerd characteristics in Amy’s scripted language. Furthermore the current study will indicate that — through what Bucholtz (2001) describes as the nerd rejection of slang — Amy’s responses are often not contextually relevant and create an overall comedic effect. Through Amy’s constructed nerd persona and her lack of social awareness, it seems that TBBT undercuts female nerd identity by presenting its female nerd characters as one-dimensional.

While Amy Farrah Fowler’s speech is not an authentic representation of nerd girl discourse, her character uses language that previous research has deemed “nerdy”. Thus,
her character represents a larger cultural phenomenon and plays off of nerd stereotypes, especially in terms of language. Contextually, due to Amy’s ignorance of slang or other social practices, Amy’s speech fails to work and often leads to miscommunication, which has humorous effects. This miscommunication can best be described as a violation of maximal relevance from Sperber and Wilson’s (1995) Relevance Theory where communication is thwarted due to a misfire in communicative practices. In other words, the response she elicits is not appropriate to the context of the conversation. Thus, Amy’s speech is constructed in such a way that will not meet the viewing audience’s communicative expectations given the context of the scripted conversation, and the audience is forced to engage in extra cognitive effort in order to understand the relevance of Amy’s utterances. Through these unexpected — and at times shocking — responses, the writers are able to effectively allow for the delivery of jokes.

2. Literature Review

This analysis contributes to previous research concerning nerd girl speak and TBBT in two ways. First, the current analysis will indicate that the humor in television shows is not only constructed in the language of the show, but also in the identities of the characters. In the context of this study, the majority of what Amy says is humorous because she is constructed as a nerd girl who has trouble navigating various societal practices that other non-nerds easily understand. In addition, the current study will also indicate that though Amy’s constructed identity creates the context for the humor to work, it is actually Sperber and Wilson’s (1995) Relevance Theory that explains why Amy’s utterances are — more often than not — humorous. Before discussing how humor is created within TBBT and the implications for such findings, first previous research on nerd girl speak and TBBT will be addressed.

2.1 Research on Nerd Girl Speak

Before 1999, the study of what is often termed “white speech” or “standard English” has largely gone unnoticed in the linguistic community. Other more stigmatized forms of speech (e.g., African American Vernacular English or Chicano English to name only a few) have been the forerunners of such research because language variations, in short, produce more interesting results because they diverge from what has been dubbed the prescriptive standard. Mary Bucholtz (1999, 2001), however, claims that one form of white speech should be addressed: nerd girl speak. In her 2001 study, Bucholtz names this form of speaking hyperwhite, which ultimately translates to super-standard correctness. She claims the hyperwhite speech used by the nerd community she follows is a stigmatized form, much like AAVE, and nerds use very specific characteristics in communication. She is careful to note that “contrary to popular perceptions, [nerd speech] is not a stigma imposed by others, but a purposefully chosen alternative to mainstream gender identities which is achieved and maintained through language and other social practices” (1999, p. 204). In other words, nerds consciously choose to speak a hyperwhite form as a means to exhibit their intellectual superiority to members outside of their community of practice. Thus, nerd speak is not a negative attribute; members of nerd communities see their language use as a means of exhibiting social power.

In addition, through her observations of a community of nerd girl speakers Bucholtz finds several defining characteristics of this hyperwhite speech. She claims that nerds often reject the use of slang and ultimately take pride in their overall ignorance of current slang words and phrases (2001, p. 89). Bucholtz further indicates that when nerds attempt
slang, it often sounds forced or awkward. Another important characteristic of nerd speech is that the phonological make-up of the pronunciation is what Labov (1972) dubs as “reading style” even in their spontaneous, everyday conversations (Bucholtz, 2001, p. 92). Furthermore, nerds only use superstandard grammar and lexis and look down on others who do not; this superstandardness or hyperwhiteness ultimately highlights the nerds’ preference for the intellectual and the rejection of the “cool” way of speaking (Bucholtz, 2001, p. 94). While Bucholtz’s observations of this particular community of speakers will serve as the foundation for analyzing Amy Farrah Fowler’s use of nerd speak, her naming this particular way of speaking “hyperwhite” is limiting in that its name suggests that it only includes speakers who are, essentially, white. Instead, the current study will refer to this type of speech as the hyperstandard in order to be more inclusive to individuals of varying races whom may identify with this way of speaking. In addition, Bucholtz’s observation of the rejection of slang will be the key feature evaluated to indicate how Amy’s identity is constructed and how humor functions in her characterization.

2.2 Research on TBBT

In the course of the research for this paper, three other studies were found on TBBT that either attempt to identify the characteristics of nerd speech or discuss the source of humor that lies in the constructed speech or behavior. These studies, however, tend to focus on the characterization of the primary male nerd, Sheldon Cooper. In Shannon Walter’s (2013) recent study, she discusses the implications of Sheldon’s Asperger-like behavior. She concludes, through Kenneth Burke’s theory of comic correctives, that the use of this behavior is not a means for building social difference; rather, it is a tool that makes Sheldon the center of his social group. She states that she “explore[s] humorous situations that show people with autism and Asperger’s Syndrome as integral elements to their communities and social circles, resisting the stereotype that people with autism are asocial or isolated” (272). This study is interesting because it indicates that the central characterization of Sheldon’s character (i.e., Asperger’s Syndrome) has a significant effect on constructing Sheldon’s social identity. Thus the indication is that humor arises from Sheldon’s inability to navigate social conventions due to his Asperger-like behavior instead of his hyperbolic nerd behavior.

Another recent study by Monika Bednarek (2012) attempts to describe the underlying characteristics of Sheldon’s speech that make it “nerdy.” The overall point that she makes in her study is that “the focus is not how ‘real’ or ‘authentic’ the analyzed scripted dialogue is, but rather on how characters are established as stylized representations of particular social identities and how narrative personae are constructed with recourse to stereotypes shared by audiences” (Bednarek, 2012, p. 202). This point is significant because it engages not with how authentic scripted language is in comparison with real-world ways of speaking, but with how the script connects with stereotypes that are universally held within a particular society or culture. In the context of the current study, this point is relevant because Amy’s core identity is based upon stereotypes that are easily recognized by audience members as “nerdy.” Bednarek’s research, however, only seeks to pull out examples of Sheldon’s speech that is defined as nerdy; there is no attempt to identify the overall comedic purpose of this way of speaking.

Shuqin Hu (2013), however, attempts to identify the comedy that resides in the verbal humor on the show through the lens of Sperber and Wilson’s (1995) Relevance Theory. According to Hu, “[D]ue to differences in personal experience, cognitive background and communicative abilities between the speaker and the hearer, optimal relevance may not be
achieved, and thus create misunderstandings and humorous effects on different scenes” (2013, p. 11-12). Thus, mutual communicative understanding relies on each speaker’s conversational expectations. When these expectations are not met, mutual understanding breaks down; thus, there is a conversational misfire. Hu argues that Relevance Theory explains how the jokes in TBBT function; often the characters deliver responses that may seem contextually irrelevant by audience members. When further cognitive reasoning is explored, however, the audience is able to understand the underlying meanings of these responses to understand the overall relevance, and ultimately the underlying joke. Hu’s research indicates the best way of understanding the humor behind the nerd speak on the show. The current study will differentiate itself from Hu’s work in that Amy’s nerdiness and use of the hyperstandard is what ultimately creates violations of relevance and communicative confusion.

3. Relevance Theory

Sperber and Wilson’s (1995) Relevance Theory is built upon the foundation that when people communicate information, they will communicate information that is relevant to the context of the conversation. The theory implies that context is vitally important to effective and efficient communication. Take this hypothetical situation for example: Say two people were engaged in a conversation where Person A asks Person B, “How old are you?” To this Person B responds, “Twenty-eight.” Notice that in this example Person B does not reply, “I am twenty-eight years old.” Given the context of the conversation and the information stored in Person A’s brain, she can infer that Person B means that he is twenty-eight years old. While this is a simplified example, it illustrates that most communication relies on the relevance of information given. There are, however, three major ways in which relevance in communication can be violated: 1) New information may be introduced in the conversation, but this new information does not fit the context of previously given information; 2) More information may be introduce but it is redundant and thus, irrelevant; 3) New information may be introduced that does not fit the context of the conversation, but the information is not strong enough to upset the overall context of the conversation (Sperber & Wilson, 1995, p. 121). Thus, an utterance, or an assumption, is contextually relevant if it is two things:

**Extent condition 1**: an assumption is relevant in a context to the extent that its contextual effects in this context are large.

**Extent condition 2**: an assumption is relevant in a context to the extent that the effort required to process it in this context is small (Sperber & Wilson, 1995, p. 125).

Thus, Relevance Theory maintains that maximal relevance (communication) is achieved when relevant information is communicated through the least amount of effort. In addition, in order for communication to be considered effectively relevant, it must also reach optimal relevance (cognition) where the context is worth noting by the hearer and it causes no strenuous effort to process the information (Hu, 2013, p. 11).

According to Hu (2013), Relevance Theory can apply to interpreting how humor works in sitcoms because “[e]xpectations of [the] audience can be considered of maximal relevance. But expectations usually end up with a twist which break the maximal relevance and motivate the search for optimal relevance” (p. 12). Thus when information given to the audience does meet its communicative expectations (i.e., maximal relevance), individuals must search for optimal relevance in the utterance. This breach between maximal and optimal relevance, according to Hu, emits humor. When confusing information is delivered to the audience, the maximal relevance is breached; thus, the
audience must continue searching for the underlying meaning of the utterance. In the context of Amy’s hyper-nerd speech, her language is constructed in such a way that her response to other characters are not what one would expect; therefore, more cognitive effort must be put forth in order to decipher the underlying meaning (i.e., relevance) of the delivered speech. Once the information is processed and the message is decoded, the joke or the underlying meaning is discovered and thus a humorous effect is rendered.

4. Methods

Over the course of this research, fifteen scenes containing Amy were transcribed from seasons three and four of *TBBT*. The other primary characters in these scenes are: Sheldon, her boyfriend who serves as the chief male nerd; Bernadette, a fellow female nerd who is much more effective at communicating in social interactions; and Penny, a community college drop out who teaches her nerd friends how to navigate social situations. Each one of these conversations was coded for what Bucholtz (2001) considers to be characteristic of nerd speak: absence of slang, reading style, and superstandard grammar and lexis. In the context of this study, the absence of slang seems to be the feature most highly used in the characterization of Amy. It is through Amy’s ignorance of popular slang that gives rise to the breach between maximal relevance and optimal relevance. In other words, the writers of the show often indicate that Amy is ignorant ofpopular social conventions through her misinterpreting the context of conversations; through this misinterpretation, Amy delivers responses that are often, at first, considered irrelevant to the context of the conversation. However, upon further inspection and once optimal relevance is achieved by the audience members, Amy’s responses are deemed contextually relevant and elicit a comedic effect. Thus, three significant scenes where Amy is characterized as ignorant of slang will be used in this analysis to indicate that through the use of this fundamental characterization of “nerdiness,” humor is successfully generated.

5. Context and Analysis

The character Amy Farrah Fowler was initially created as an attempt to introduce more female nerds to the show’s male-dominated cast. Before her emergence, the only other female leads were Penny, a waitress and aspiring actress, and Bernadette, a microbiologist. Amy’s first appearance on the show occurs in the last episode of the third season, and she is introduced as a romantic companion for Sheldon Cooper. While there are other nerds on the show (e.g., Leonard, Raj, Howard, and Bernadette), Sheldon and Amy act as the show’s hyper-nerds, meaning stereotypical nerd characteristics were applied and hyperbolized in the creation of these two characters. Amy’s identity as a hyper-nerd most clearly surfaces in her language. The speech created for Amy uses all of Bucholtz’s qualifiers for typical nerd girl speech: She is unaware of slang, speaks with a textbook register, and uses superstandard grammar and lexis. These characterizations, however, are often hyperbolized, especially in her rejection/ignorance of slang terminology; in any case, Amy’s language often goes beyond what Bucholtz would consider realistic nerd girl speech. Amy’s language is usually very mechanical and distant, and other characters in the show are often scripted to show confusion or even shock at Amy’s responses in social interactions. In the following excerpts from the show, the analysis will indicate Amy’s hyper-hyperstandard nerd girl responses often break down the connection between Sperber and Wilson’s (1995) maximal relevance and optimal relevance. In each excerpt, Amy’s ignorance of slang delivers responses that are not apparently relevant to the previously scripted information and require the audience
members to actively search for the underlying optimal relevance of the utterance. Once optimal relevance is achieved, the joke is processed because there is the understanding that Amy’s responses have relevance in the context of her nerd persona.

5.1 Nerding Out: The Establishment of Amy’s Nerd Persona

As mentioned before, Amy’s character was initially introduced to the show as a romantic partner for the male hyper-nerd, Sheldon. In the following excerpt, Sheldon and Amy are set up on a blind date through an internet dating site even though each appear to be disinterested in dating. The two indicate that each have an ulterior motive for going on this date: Sheldon is being blackmailed by his friends, Raj and Howard (they placed a dirty sock somewhere in his apartment and they will not remove it until he goes on a date), and Amy has agreed to date once a year as a means to appease her mother. While the two initially seem unhappy about being on a date, at the close of their initial introduction, the two find a common bond in their mutual hyper-nerdiness. This mutual understanding of the hyper-nerdiness, however, generates a comedic effect and acts as a running joke. Because the language used in this excerpt feels synthetic and unemotional, a break appears between maximal relevance and optimal relevance and a comedic effect is achieved.

Excerpt 1: I’m unfamiliar with it.

1  Amy:  Excuse me? I’m Amy Farrah Fowler; you’re Sheldon Cooper.
2  Sheldon: Hello, Amy Farrah Fowler. I’m sorry to inform you that you have
3  been taken in by unsupportable mathematics designed to prey on the gullible
4  and the lonely. Additionally, I’m being blackmailed with a hidden dirty sock.
5  <audience laughter>
6  Amy:  If that was slang, I’m unfamiliar with it. <audience laughter> If it was
7  literal, I share your aversion to soiled hosiery. <audience laughter> In any case,
8  I’m here because my mother and I have agreed that I will date at least once a
9  year (Aronsohn, Molaro, Holland & Cendrowski, 2010).

In line six, Amy indicates to Sheldon that she is unaware of slang. According to Bucholtz (2001), aversion or even naivety to slang is a central component of nerd speech. Amy’s metalinguistic acknowledgment of this rejection indicates her role as a nerd girl; because she is nerdy, she does not know slang. Furthermore, because she does not know slang, she is automatically casted as intellectually superior because she is “too intellectual” to be familiar with such intellectually inferior ways of speaking (much like Bucholtz notes of her nerd girls in her 2001 study). Notice, however, that the audience is cued to laugh after this utterance. What is it about this line that renders a comedic effect? Note the previous line: Sheldon has just indicated to Amy that he is being blackmailed with a dirty sock. The most logical or anticipatory response to this utterance would be to ask for further information about the dirty sock to gain contextual background of the story. The show’s writers, however, choose to have Amy ignore searching for relevance and instead have Amy speak in a manner that highlights her hyper-nerd persona. The audience, however, realizes this disconnect between what Sheldon says and how Amy responds. Her response is seemingly inappropriate contextually given the previous information. Thus, the audience’s maximal relevance is violated; Amy’s response does not provide minimal effort. But does this violation make her response irrelevant? Hu (2013) states, “[A]ccording to the communicative principle, every utterance creates a presumption of relevance and the seemingly irrelevant reason should be optimally relevant in this certain context” (p. 13). Thus, Amy’s response is relevant, but it is through the audience’s search.
for optimal relevance, or further cognitive processing, that her response is understood as funny.

5.2 “Nerdy” Stories: Amy’s Nerd Persona in a Female Group of Speakers

During season four of *TBBT*, Amy becomes an established character and the show’s writers move her beyond nerd-only interactions to female social interactions as well. In this excerpt, Amy attends her first “girls’ night,” which eventually turns into a slumber party because Amy indicates that she was never invited to one as a child. Throughout the evening, the girls play stereotypical slumber party games such as truth or dare. Over the course of this game, maximal relevance is violated because Amy’s response to Bernadette’s dare does not meet the contextual expectations of the viewing audience.

Excerpt 2: The dirtiest story I know.

1  Amy: And Absolon hath kist hir nether eye, and Nicholas is scaled in the
toute. This tale is doon, and God save all the route. <gives Bernadette & Penny
a knowing look>
2  Penny: What the hell was that? <audience laughter>
3  Amy: Bernadette dared me to tell a dirty story. “The Miller’s Tale” by
4  Chaucer is the dirtiest story I know. It would have been hidden in sock drawers
5  if people in the 14th century had worn socks. <audience laughter>
6  Bernadette: I thought it was pretty spicy. Especially the part where he kisses
7  her nether eye.
8  Amy: You might not like it as much if you knew what nether eye meant.
9  Hint, if one cares about hygiene, one ought not be kissing it. <audience
laughter> (Prady, Molaro, Holland & Cendrowski, 2011).

In this excerpt, Bernadette has dared Amy to tell a dirty story. In the context of relevance, most would assume that the story would be pornographic in nature. Instead, Amy is constructed as ignorant to the meaning of “dirty story,” and the writers instead have her recite a piece of medieval literature — in perfectly pronounced Middle English. First, through nerd conventions the show’s writers create the joke by having Amy misconstrue Bernadette’s request for a dirty story and having her tell an intellectually challenging one instead. It is through the ignorance of slang (i.e., dirty story) that the joke relies on. Because Amy misunderstands Bernadette, her response violates the audience’s maximal relevance. She is not participating in the game as she should, and the audience must make a greater, cognitive effort to understand the joke. In line four, Amy indicates that “The Miller’s Tale” is the dirtiest story she knows. Further down, in lines ten and eleven, she further indicates that the story is not sexually dirty; instead, it is literally dirty. Again, Amy’s response causes the audience extra effort in processing the information that is presented. Once the audience understands what “nether eye” means, they may fully grasp the underlying joke and the misunderstanding that was created due to Amy’s rejection of slang.

5.3 Girl Talk: Amy’s Attempt at Female Discourse

This final excerpt is another scene from the slumber party episode, but instead of Amy’s nerd speech creating the break between maximal relevance and optimal relevance (like in the previous section), the break occurs when she attempts to participate in what is stereotypically known as “girl talk.” Amy, however, again is constructed as ignorant of
slang in that she does not understand that “girl talk” ultimately means gossip, and she literally interprets girl talk as the discussion of the female anatomy. The construction of Amy’s nerdiness is what causes her attempt at participating in this social convention a failure, and this failure is ultimately what creates the humor in the scene.

Excerpt 3: Well, don’t tell me that’s not girl talk.

1 Amy: So anyway, to make a long story short turns out I have an unusually firm cervix.
2 Penny: You know, heh, Amy when we say girl talk, it doesn’t just have to be about our lady parts.
3 Amy: Shame. Because I have a real zinger about my tilted uterus. <audience laughter>
4 Penny: <drinks more wine and looks baffled>
5 Bernadette: Penny your nails look great.
6 Penny: Oh thanks. I found this place in Alhambra. It’s in a woman’s basement. I think it’s a front for human trafficking but they do a really good job.
7 Amy: A colleague of mine did her graduate thesis on the fungus that grows on improperly sterilized manicure implements. <Bernadette & Penny look confused> Well, don’t tell me that’s not girl talk (Prady, Molaro, Holland & Cendrowski, 2011).

Clearly in this excerpt, Amy is constructed as an individual who is entirely out of touch with normative social conventions such as girl talk. In line one, the writers have Amy respond to the girl talk prompt in a literal manner; instead of having her indulge in discussions of boys, clothes, or gossip, the writers play off of Amy’s hyper-nerd identity and have her respond by discussing what is literally girly: her cervix. During this opening line of the scene, the maximal relevance is disrupted in that there is no previous information to indicate why Amy is discussing her cervix; instead, it is not until Penny delivers the punch line in line three that the audience is able to infer that the girls are engaging in girl talk. Even after the punch is delivered, the audience must further interpret the connection between “cervix” and “girl talk.” Once it is understood that Amy has misunderstood the social meaning behind girl talk, optimal relevance is achieved, and the joke is understood.

6. Conclusion

In an interview with Deadline Hollywood, TBBT’s co-creator, Bill Prady describes the inclusion of nerd characters on his show. Prady states, “We are depicting a particular culture, and whenever you are depicting a particular culture, there is an instant judgment made whether you are celebrating or mocking the culture. We knew we were celebrating it because it is our culture” (2011). This explanation most likely is in response to criticism that self-identified nerds have given the show; these nerds claim the sitcom “paints a depressing picture of scientists” in that it categorizes nerds as socially inept or emotionally disconnected (Heyman, 2008, p. 741). In the context of the present analysis, it seems that the latter of these arguments holds true. While Prady and his co-creator, Chuck Lorre, may feel that TBBT “celebrates” nerd culture, it actually takes stereotypical nerd characteristics and hyperbolizes them to the point of parody. In the excerpts given above, most of the comedy comes from the characterization of Amy as a socially incompetent individual and the assumption is made that nerds are unable to navigate simple social
conventions such as playing the game truth or dare. Thus, the underlying joke is based on her identity as a nerd, not the actual lines she delivers. It is not what she says that is necessarily funny; it is her misunderstandings that are funny, and this misconstruing of information relies on her construction as a hyper-nerd. The assumption is that her character is unable to decipher the social context of “normal” conversation because she is given the identity of nerd and ultimately this implies that actual nerds suffer from the same social awkwardness.

In order for this assumption to be conclusive, more research is needed on the nerd language used within *TBBT*. In addition to studying the construction of the hyper-nerd characters, it may also prove significant to analyze the construction of “standard” nerds within the series (e.g., Leonard, Raj, Howard, and Bernadette). Through thorough analysis of these characters, an inference can be made based on whether or not this hyperbolic representation of nerds is typical of all nerd characterizations or if it only holds true to the hyper-nerds that have been researched thus far. Furthermore, an ethnographic approach could also be utilized in order to capture the attitudes of actual viewers of this television program. Self-identified nerds could potentially be interviewed in order to establish the attitudes of people within nerd culture in order to set up a means for either authenticating or denouncing the construction of the nerd characters. In addition, members of the non-nerd community could also be interviewed to establish the common nerd ideologies held by society outside of nerd culture. The overall significance for this research in the context of linguistic study is not to indicate that television programs are authentic representations of language; instead, the point made here is that larger societal and cultural stereotypes play a crucial role in the actual construction of television characters. It is through these characters that we may see what stereotypes are culturally relevant at the moment and what specific language ideologies may be at play.

References


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