

## Popular culture geeks, suffering, revenge and mathematics

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From *The Big Bang Theory* to *Stranger Things*, geek characters are increasingly central to contemporary popular culture. They may be primarily into technology or science but this is always grounded in extraordinary mathematical skills. As Tony Stark says in *Iron Man* “If my math is right, and it always is...”. In this article, we map one aspect of how the pop culture geek is represented: suffering-revenge narratives. We use the Mark Zuckerberg biopic *The Social Network* as an archetypal example and argue that while suffering and revenge have always been part of geek representations, they are increasingly taking on misogynistic forms. These narratives legitimate the gendered policing of online geek spaces and wider sexism. As a contrast, we look at working-class Latina female geek Betty Aurora Rincón in the television series *Betty en NY* showing how she responds to suffering with forgiveness and empathy rather than revenge.

**Keywords:** geeks; *The Social Network*; *Betty La Fea*; technology.

### Introduction

From *The Big Bang Theory* to *Stranger Things*, geek characters are increasingly central to contemporary popular culture. Popular culture provides narratives through which we imagine ourselves, other people and what is possible. Geek narratives do this for the mathematically ‘able’ and ‘unable’, providing stories about who can occupy these positions and how their/our lives will play out. Suffering – in the form of bullying and abuse by the more popular crowd – has long been central to geek narratives, as is the revenge executed as payback. Typically, in the 1984 film *Revenge of the Nerds*, this is framed as a struggle between contrasting white masculinities – dominant ‘jocks’ vs marginalised ‘nerds’. More recently, some pop culture texts position female rejection as inflicting a wound on the geek that must be avenged through his ascendancy within masculine hierarchies. In this paper, we analyse geek suffering and revenge through two contrasting examples: Facebook-founder Mark Zuckerberg in the 2010 film *The Social Network* and economics-genius Betty Aurora Rincón in the 2019 television series *Betty en NY*. We draw on a larger research study, [Geek Equity](#), funded by the Swedish Research Council, that traces how ‘the geek’ includes and excludes and how its shifting articulations are transforming the available identities in technology education.

Traditionally geek characters in popular culture are white men who are geniuses, working in the fields of mathematics or science. They are socially awkward and often have mental health problems. Women figure in the stories as love interest and support and as inspiration and muse. If any of the female characters are also mathematicians or scientists, as is John Nash’s wife in 2001’s *A Beautiful Mind* and Will Hunting’s girlfriend in 1997’s *Good Will Hunting*, they are lesser in their intellectual abilities and in their importance to the plot. They are defined by their

relationship to the central male genius, usually as some combination of wife, student, and assistant (Duchin, 2004, Moreau et al., 2009).

This geek figure persists in television series like *The Big Bang Theory* (2007-19) and films like *The Theory of Everything* (2014). But there is a new geek figure emerging in popular culture texts like *The Social Network*. Such figures are still in most cases white men who are geniuses. However, technology is rapidly displacing mathematics and science as the focus of their genius – although this is always underpinned by mathematics, as when Tony Stark the hero of *Iron Man*, in a life-or-death situation says: “If my math is right, and it always is...” (Favreau, 2008). While the geek is still out of step with the rest of society, this trait is no longer framed negatively as social awkwardness but positively as transgressive, and geeks are often depicted as cool and entrepreneurial. In superhero films across the Marvel Cinematic Universe (2008-) and in action movies like *6 Underground* (2019), geeks even appear as traditional masculine heroes. Women still largely figure in supporting roles as love interest, assistant and muse. But in place of, or in addition to romantic storylines, we have gendered revenge narratives. In these, women inspire male creativity not through love, beauty or support as in earlier films like *A Beautiful Mind* and *Good Will Hunting*, but through a misogynistic heteronormative narrative in which women cause experiences of pain and rejection. We begin by exemplifying that narrative.

### **Gendered revenge narratives: *The Social Network***

*The Social Network* (Fincher, 2010) tells a story about the creation of Facebook. In so doing, it offers an archetypal geek revenge narrative in which the technological entrepreneurial success of a white male genius is represented as the realisation of revenge against female rejection. The film opening establishes this with Facebook founder Mark Zuckerberg and girlfriend Erica Albright in a Harvard bar. After a short conversation in which Mark both ignores and insults Erica, she ends their relationship:

Erica: I think we should just be friends.

Mark: I don't want friends.

Erica: I was just being polite, I have no intention of being friends with you.

Mark: I'm under pressure now from my OS class and if we could just order some food, I think we should-

Erica (said leaning towards Mark, taking his hand, looking him directly in the eyes, and finishing with a close up on her face): You are probably going to be a very successful computer person. But you're going to go through life thinking that girls don't like you because you're a nerd. And I want you to know, from the bottom of my heart, that that won't be true. It'll be because you're an asshole. Erica then leaves the bar and Mark remains. As the opening credits roll, we see him running to his student rooms in Harvard ignoring the people around him. Once home, he turns on his computer and monitors, takes a beer out of a fridge full of beer and begins blogging. His voice-over tells viewers what he is typing:

Erica Albright's a bitch. You think that's because her family changed their name from Albrecht or do you think it's because all BU girls are bitches? For the record, she may look like a 34C but she's getting all kinds of help from our friends at Victoria's Secret. She's a 34B, as in barely anything there. False advertising.

After this misogynistic rant, Mark narrates: “I need to do something to take my mind off her”. One of his room-mates suggests creating a website to compare women with

farm animals. Mark opts for comparing female Harvard students with each other as it has “a very Turing feel”. This requires photographs and his voice-over announces: “Let the hacking begin”. The voice-over continues tracking Mark’s progress:

It’s slightly obnoxious that they only let you view one picture at a time and there’s no way I’m going to go to 500 pages just to download pics one at a time so it’s definitely time to break out emacs and modify that Perl script.

In addition to these technical coding references, we see the mathematical algorithm needed to compare women based on their cumulative ratings written on the dorm room window by Eduardo Saverin who becomes Mark’s partner in Facebook.

In this and other contemporary geek films coding and hacking play a similar role to mathematics in earlier films. They are a performance for the viewer rather than something we are invited to engage in and to try to understand. In addition to the external audience there is often an internal audience as in *The Social Network* scene where as the night continues, Mark’s room-mates gather behind his computer drinking beer and watching him code. Such performances secure the geek’s genius. The coding and mathematics in the film position the geek as superior to others as when Mark dismisses a female character’s basic use of figures with his sarcastic, “I’m just checking your math on that”. Coding and mathematics, positioned as both objective knowledge (potentially accessible to anyone) and simultaneously difficult (accessible only to the really smart), guarantee the geek’s merit. Thus they contribute to constructing geek success as deserved and self-made and their control over our lives through Facebook and other technologies as legitimate (Reagle, 2015).

The geek revenge narrative recurs throughout the film. Mark’s decision to expand Facebook in the film follows immediately after him meeting Erica by chance in a bar where she refuses to talk to him and wishes him ‘good luck with your video game’. Later in the film Mark meets another technological entrepreneur Sean Parker who cites female rejection as his reason for inventing music-sharing website Napster:

The girl I loved in high school was with the co-captain of the varsity lacrosse team and I wanted to take her from him. So I decided to come up with the next big thing. ... Napster wasn’t a failure. I changed the music industry for better and for always. It may not have been good business but it pissed a lot of people off. ... They’re scared of me pal and they’re going to be scared of you. What the VCs want is to say ‘good idea kid. The grown ups will take it from here’. But not this time. This is our time. This time you’re going to hand them a business card that says, ‘I’m CEO, Bitch’. That’s what I want for you.

Geek masculinities are set up in opposition to jock or Chad masculinities represented by “the co-captain of the varsity lacrosse team”. Similarly the film features the Winklevoss twins – Olympic rowers who are framed to show the contrasts between their physical size and strength and Mark’s. In the opening scene Mark compares himself to “guys who row crew” and Erica confirms she likes them in “the way a girl likes cowboys”. Geeks are also set up in opposition to VCs (Venture Capitalists) who talk down to geek entrepreneurs and want to contain their innovation. In this logic, however rich and powerful the geek becomes, he will never be a “grown up”, rather he will continue scaring and pissing off a lot of people by challenging the status quo.

The film ends with Mark sitting alone. A caption tell us that “Facebook has 500 million members in 207 countries. It’s currently valued at 25 billion dollars”. Mark is a success but this is not enough for we see him looking at Erica Albright’s Facebook profile, sending her a friend request, and then repeatedly refreshing the page to see if she accepts it. This is *not* a happy ending like we get in first-generation geek revenge narratives. His wound never heals.

## Rejecting revenge: *Betty en NY*

As we argued above, popular culture narratives provide the meanings through which we make sense of our lives. Angela Nagle (2015) documented widespread misogyny in online geek cultures focusing on the message board 4chan/b/ but also looking at other forums such as Reddit. *The Social Network* directly references these subcultures, notably, when Erica tells Mark: ‘You write your snide bullshit from a dark room because that’s what the angry do nowadays’. Nagle (2015, p.105) found threads that:

involved revenge fantasies, feelings of having sex withheld by women, belief that women are only sexually interested in macho men who are unlike them and references to Elliot Rodger, the multiple murderer who cited women’s withholding of sex as one of his main motivations.

Rodger is not the only such killer. We thus desperately need alternatives to the dominant geek suffering-revenge narrative. Female pop culture geeks offer some such alternatives. In *The Girl with the Dragon Tattoo* or *Män som hatar kvinnor* (Oplev, 2009), tech geek Lisbeth Salander suffers physical and sexual violence at the hands of her stepfather and her state-appointed guardian. She responds by tattooing her guardian with the words “I’M A SADIST PIG AND A RAPIST” and by working with a male journalist to track down a rapist and serial killer of women. In contrast to Mark, Lisbeth is a survivor of brutal male violence, not an everyday breakup. Yet she ends the film finding closure, reconciling with her mother, not in a perpetual state of pain. Lisbeth seeks justice more than revenge. We finish with Betty Aurora Rincón, a female working-class Latina geek who chooses forgiveness over either.

*Betty en NY* (Loza et al., 2010) is the thirtieth series inspired by a 1999 Colombian television series *Yo Soy Betty La Fea*. In *Betty en NY*, Betty is highly intelligent. As well as extraordinary skills and qualifications in economics, she speaks five languages. Her flair is for the mathematics of business and she relies on her geek best friend Nicolas Ramos for help with technology. Betty is marked by her ‘ugliness’ with unflattering glasses, unstyled hair, and unfashionable ill-fitting clothing. Like white male geeks, she is clumsy, socially-awkward and attached to childish things. However, unlike them, Betty is a site of identification for viewers. Elyfer Torres who plays her says: “We have all felt not enough or not beautiful enough for something. If you felt that at least once you can connect ... then you feel her as your friend” (in Tapia, 2019). The producers instructed Elyfer to delete all social media images where she looks different from Betty and during the period when the show was broadcast, to appear on chat shows in character. Unlike male geeks, Betty is an everywoman. Her story focuses not on her intelligence but on her failure to be ‘beautiful’, her family relationships and friendships, and her struggle to overcome her insecurities.

Betty is bullied relentlessly for her ugliness from an early age. In flashbacks, we see her high school prom date taking her out to win a bet with his friends and then raping her. As an adult, Betty’s ugliness makes it difficult for her to find and retain employment, forcing her to apply for a secretarial vacancy in a fashion company. Once in post, the company’s president Armando Mendoza gives her a secluded storeroom for an office and after the VP Finance is dismissed for corporate espionage, Betty takes on his workload but not his title, nor his salary, nor his office.

Ultimately, Betty triumphs becoming president of the company and ‘beautiful’ through an extensive makeover by a fairy-godmother character. Despite the extent of her suffering, Betty explicitly rejects seeking revenge against her former detractors, as her friend Nicolas advocates, opting instead for forgiveness, generosity and redemption. Melodrama is a key white male geek narrative, in which:

suffering, regardless of its source, equals moral superiority. It is through this process that the geek hero becomes a justified and superior protagonist in the face of all other identities and regardless of the politics surrounding the geek hero's straight white maleness. (Kunyosying & Soles, 2017, online)

Thus, normally the suffering-revenge geek narrative functions to disappear structural oppression due to race, gender, social class and sexuality. Betty, lacking the white male geek's entitlement, does not experience her suffering as unique. It provides her with a basis for empathy even with those who tried to destroy her including Armando who exploited Betty's love for him by involving her in illegal business practices and started a sexual relationship with her to secure her loyalty. Although Armando's looks are unchanged, ultimately his transformation is greater than Betty's and is only possible through his relationship with her.

## Conclusions

In this article, we map one aspect of how the geek is represented in contemporary popular culture: suffering-revenge narratives. We used *The Social Network* as an archetypal example and argued that while suffering and revenge have always been part of geek representations, they are increasingly taking on misogynistic forms. These locate women as the source of male geek suffering because they sexually reject geeks for physically-stronger and better-looking men. This 'suffering' fuels the geek's technological innovation and entrepreneurialism. It also confers moral superiority on him as does his genius, evidenced in his exceptional mathematical and coding abilities. The film-makers behind *The Social Network* chose:

to frame the narrative in this way, ignoring the existence of the Facebook creator's real-life girlfriend and future wife, heighten[ing] the film's geek melodrama by staging the entire narrative as a socially outcast computer geek's obsessive competition with jocks over women. (Kunyosying & Soles, 2017, online)

These narratives legitimate the gendered policing of online geek spaces that we can see in the use of memes like 'tits or GTFO' which demands that a female commenter post a time-stamped image of her naked breasts or leave the thread. These fictional and fictionalised representations also shape how we see real-life technological entrepreneurs such as Elon Musk, Jeff Bezos and of course Mark Zuckerberg himself. They support the idea that such people reach the top through their own merit: "the neoliberal meritocratic narratives of the ultra-rich ... are used as a powerful weapon in their arsenal of strategies to maintain and extend their wealth and power" (Littler, 2017). It renders these CEOs metaphorically, or in the case of *Iron Man*'s Tony Stark literally, as superheroes. We can see this as an element in what Thomas Frank calls 'market populism'. Market populism redefines citizens as consumers and valorises market mechanisms over other ways of achieving our goals and relating to each other. It "decries 'elitism' while transforming CEOs as a class into one of the wealthiest elites of all time. It deplores hierarchy while making the corporation the most powerful institution on earth" (Frank, 2001, pp.xv-xvi). In this context, it is vital to generate critical academic scholarship on the role of educational discourses in the construction of geek CEOs.

Mathematics functions socially as the ultimate objective form of knowledge and signifier of intelligence. As we have seen, when mathematics and technology are constructed as esoteric and 'elitist' signifiers of extreme intelligence, this supports the idea that mastery comes at the cost of being socially inept and sexually undesirable, and hence produces the 'suffering' that must then be avenged. All of us who work in

mathematics education are complicit in this and we should play our part in challenging and changing it. To this end, we shared the alternative pathways taken by geeky women in popular culture: working-class queer geek Lisbeth Salander and working-class Latina geek Betty Aurora Rincón. In place of the white straight middle-class male geek's perpetual pursuit of revenge through masculine competition against the pain of female rejection, Lisbeth and Betty face their abuse at the hands of men by seeking justice, forgiveness and closure.

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