

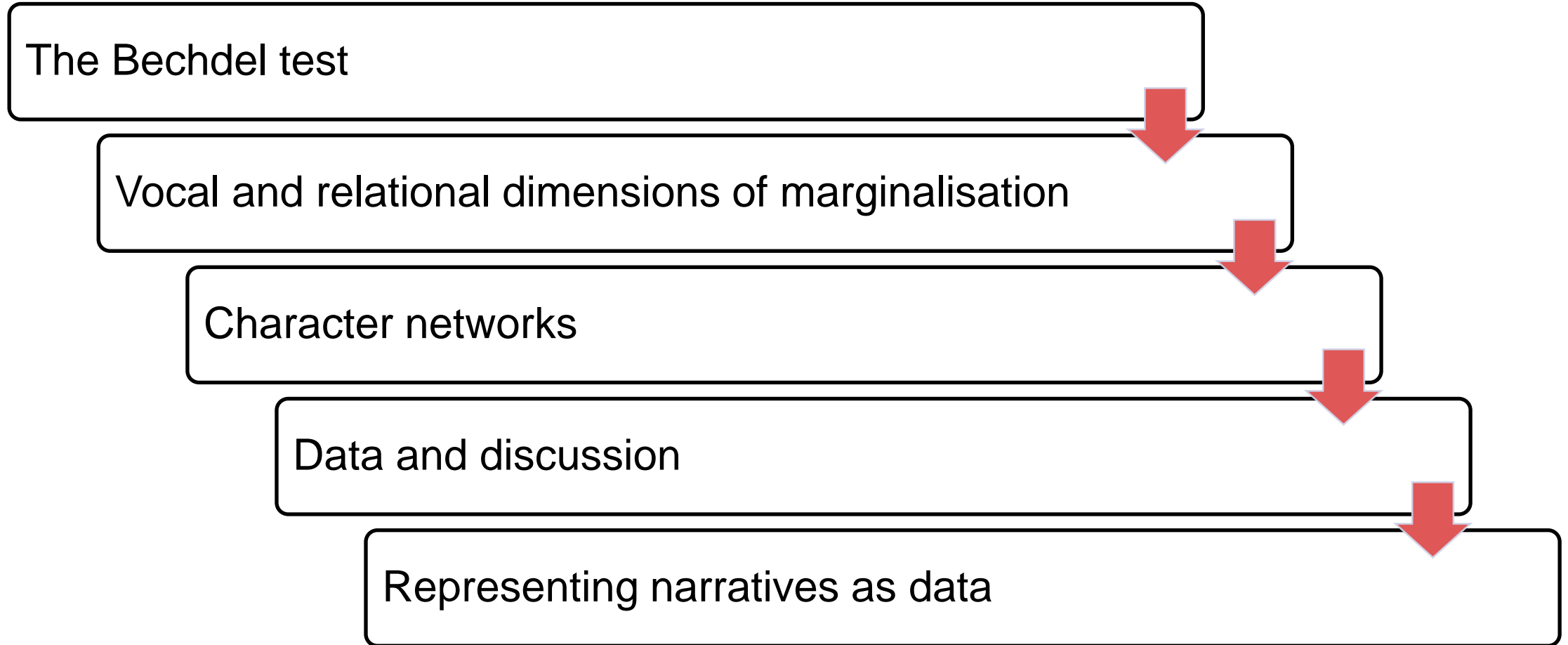
# Character networks and the narrative marginalisation of women in popular cinema

Pete Jones



The University of Manchester

# The plan



# Gender and narrative marginalisation

- The Bechdel test
- Empirical content analyses
- Feminist film and media studies

# Gender and narrative marginalisation

- **The Bechdel test** →
- Empirical content analyses
- Feminist film and media studies

“One, it has to have at least two women in who, two, talk to each other about, three, something besides a man”  
(Bechdel 1986, 22).

# The Bechdel test

- bechdeltest.com  
↳ IMDb.com

## Bechdel Test Movie List

/bech·del test/ *n.*

1. It has to have at least two [named] women in it
2. Who talk to each other
3. About something besides a man

### ✖ How to Train Your Dragon: The Hidden World (2019)

This movie passed 2 of 3 tests. It was entered by Belinda Melissa on 2019-01-18 08:56:49.

#### Reviews

- No reviews listed.

#### Comments

**Belinda Melissa** said:

This was an otherwise gorgeous movie, but there's only one exchange that I noted between two women, Valka and Astrid, and it was about Hiccup.

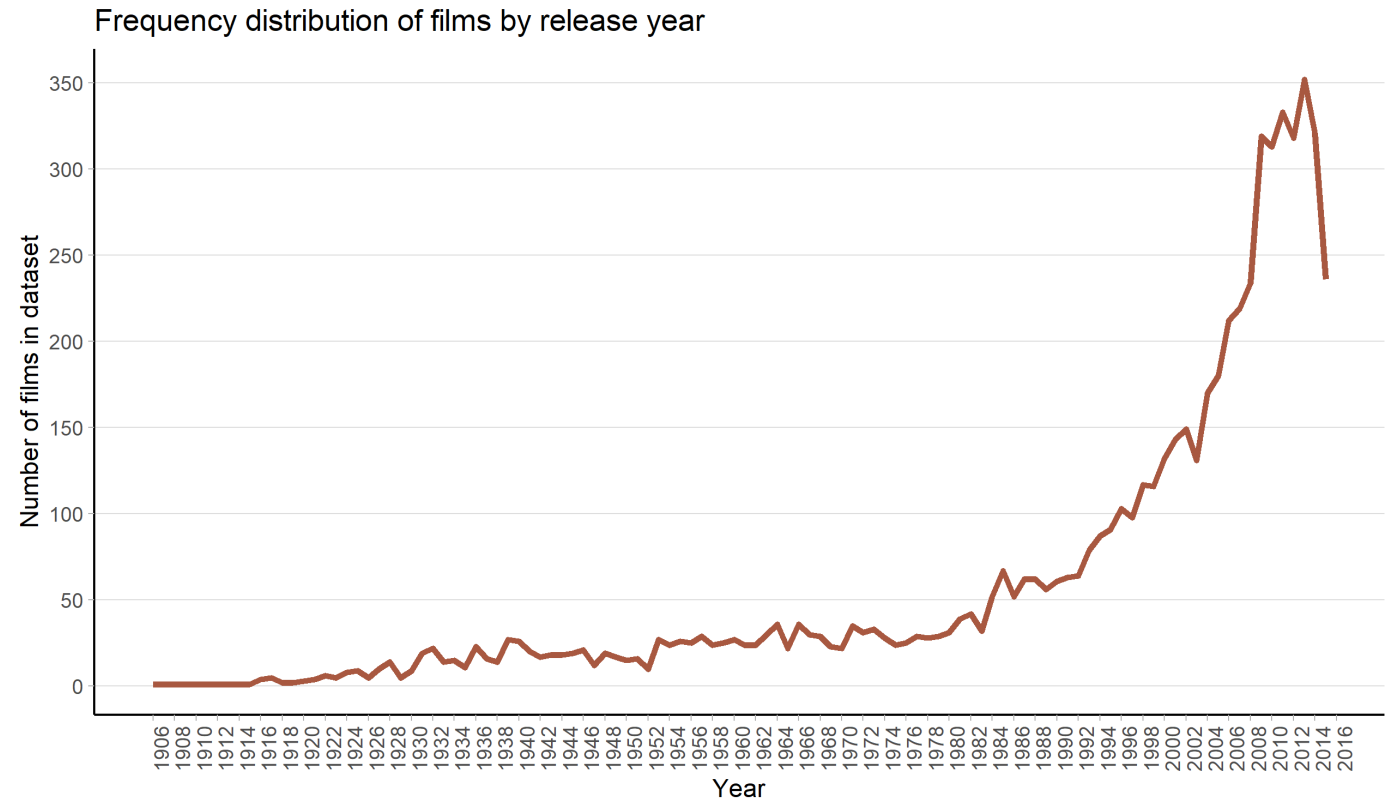
Message posted on 2019-01-18 08:56:49

**Narendra Martosudarmo** disagreed with the rating and said:

In the beginning of the film, Astrid talked about how "sloppy" their latest rescue mission was, and Valka backed her up by saying that the Dragon Riders were relying too much on their dragons instead of each other. Also later on in the film, Astrid asked Ruffnut on how she escaped Grimmel and the warlords, and

# The Bechdel test

- bechdeltest.com
  - ↳ IMDb.com
  - ↳ 6,686 films



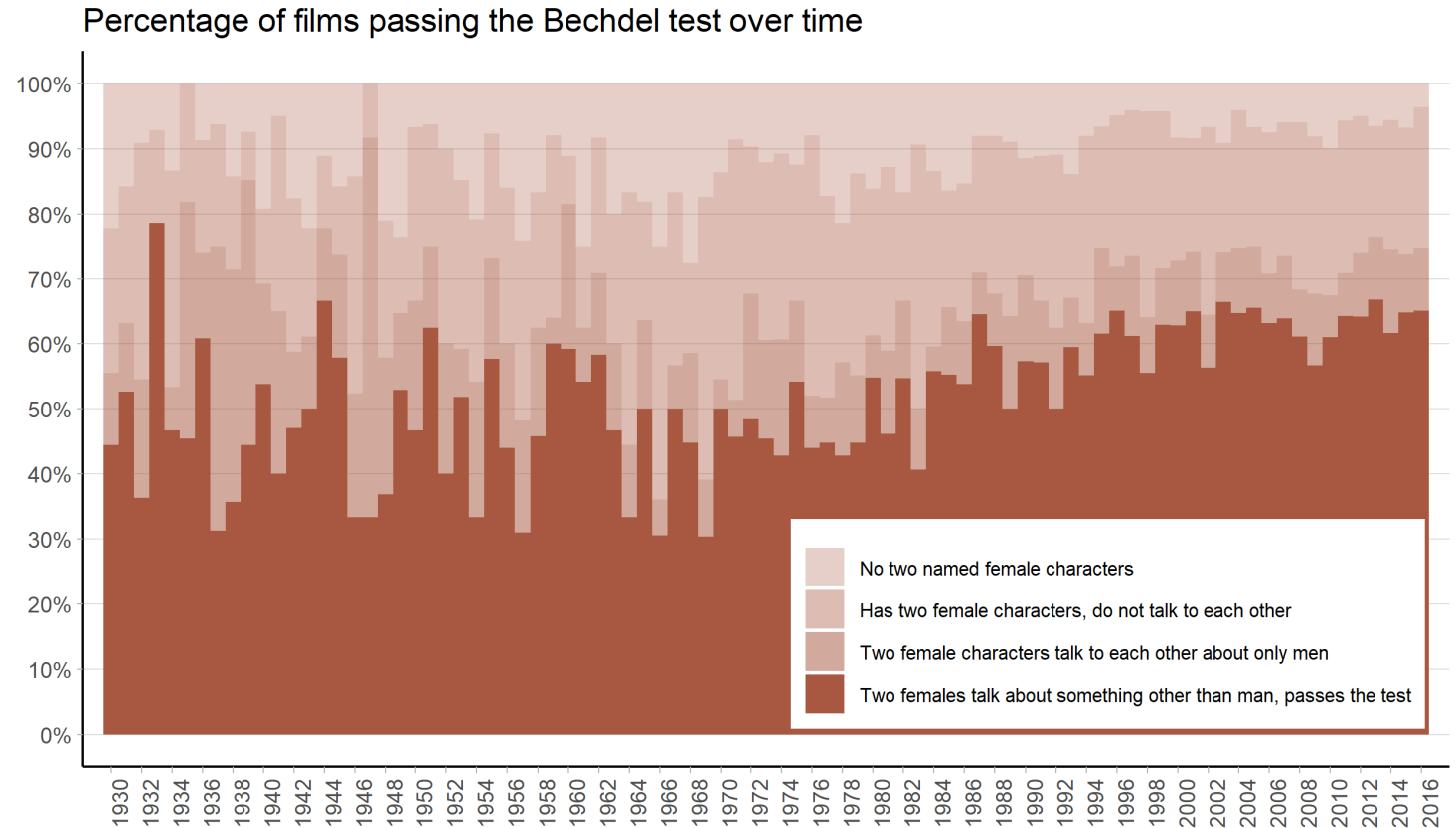
# The Bechdel test

- bechdeltest.com
  - ↳ IMDb.com
  - ↳ 6,686 films
  - ↳ Cleaned
  - ↳ **6,448 films**

58.4%

# The Bechdel test

- bechdeltest.com
  - ↳ IMDb.com
  - ↳ 6,686 films
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  - ↳ **6,448 films**





# The Bechdel test

- bechdeltest.com

- ↳ IMDb.com

- ↳ 6,686 films

- ↳ Cleaned

- ↳ **6,448 films**

- ↳ Gender added

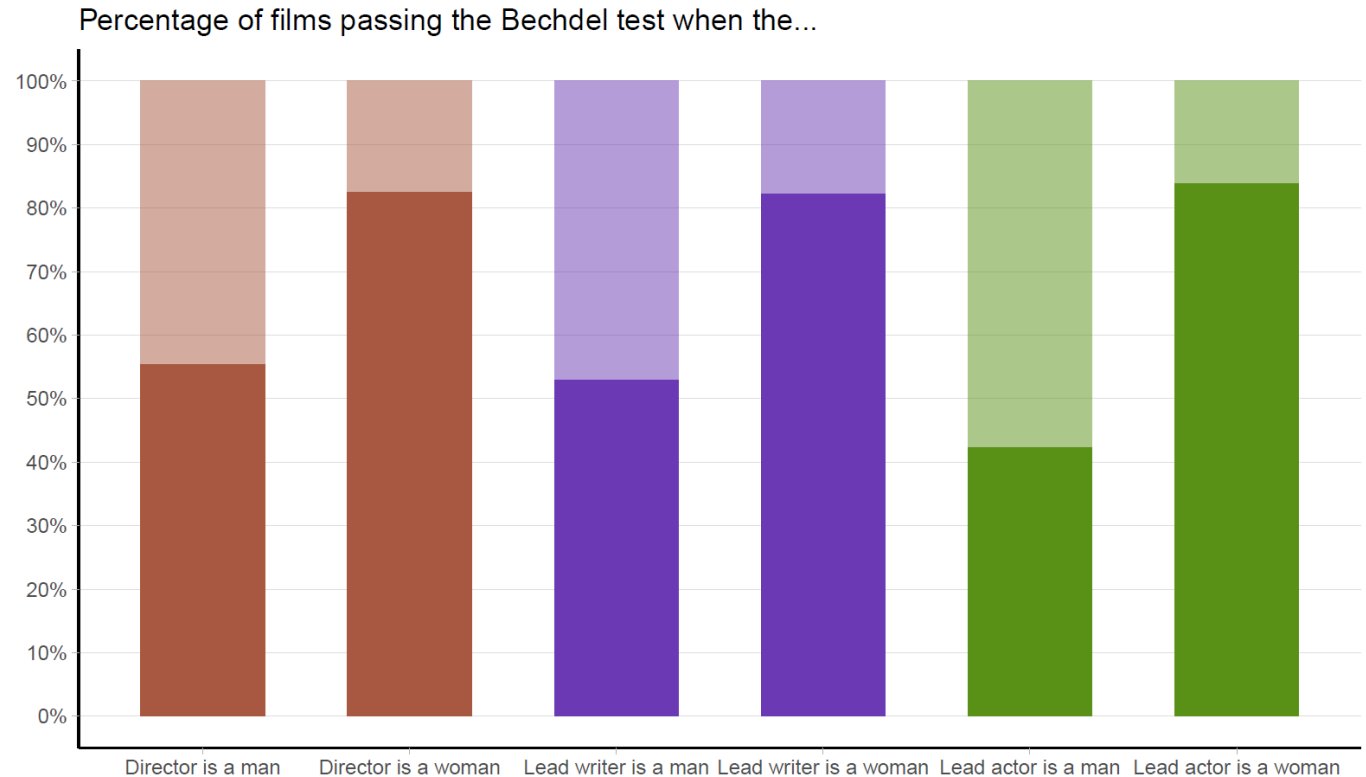
- ↳ Mullen (2016)

- ↳ (cf. gendrendr)

Role	Number of women (%)	Number of men (%)
Director	708 (10.98%)	5,749 (89.02%)
Lead writer	1,200 (18.61%)	5,248 (81.39%)
Lead actor	2,490 (38.62%)	3,958 (61.38%)

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  - ↳ IMDb.com
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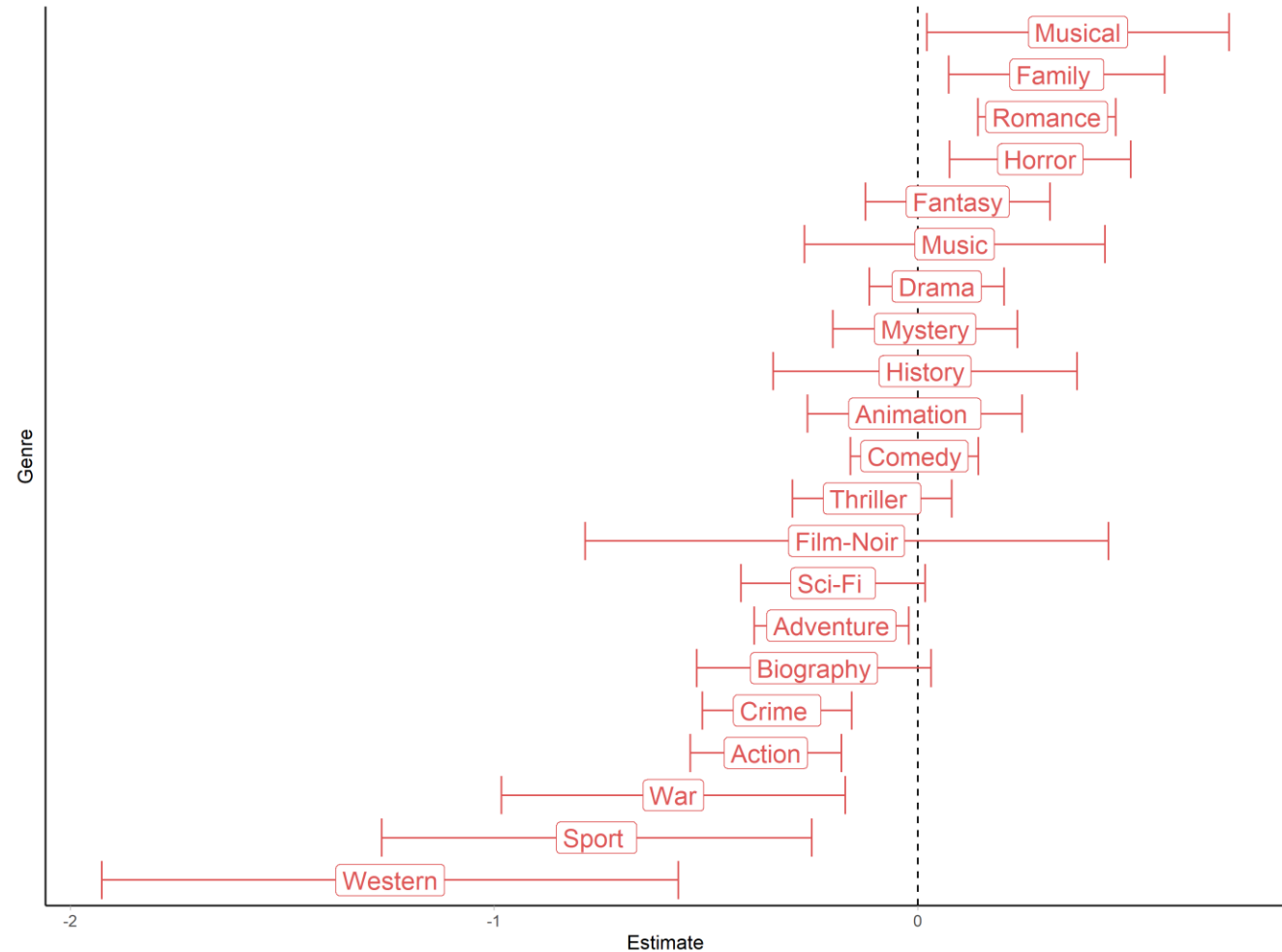
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    - ↳ (cf. gendrendr)

Variable	Estimate	SE
Year (centred)	0.013***	0.001
IMDb score	-0.099***	0.032
Director is male	-0.492***	0.122
Lead writer is male	-0.760***	0.094
Lead actor is male	-1.722***	0.067
<i>Genre</i>		
US-produced	0.197***	0.067
Constant	2.774***	0.271
Observations	6,443	

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

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# The Bechdel test

Vocal

Relational



# Gender and narrative marginalisation

Vocal

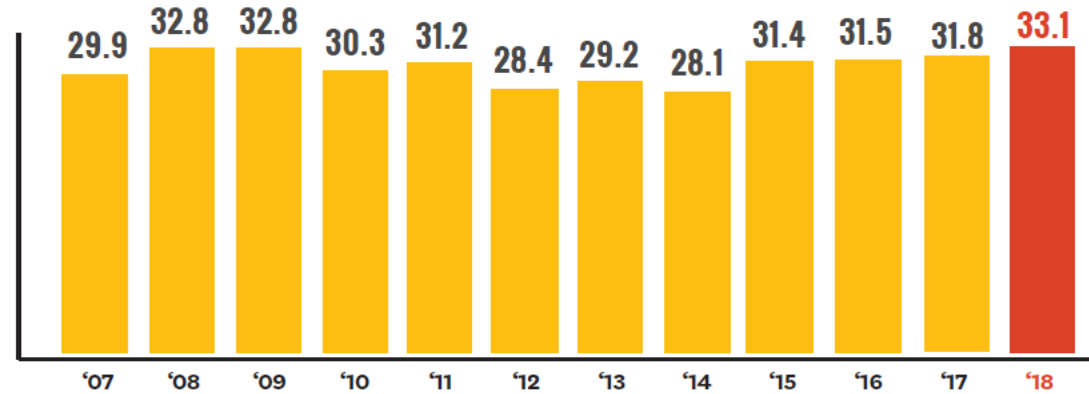
Relational

Study	Years in sample	Speaking roles	Lead/major characters
Bleakley et al (2012)	1950-2006	-	31%
Hunt et al (2019)	2011-2017	-	32.9% (2017) 31.2% (2016) 27.3% (2011-2015)
Lauzen (2019)	Annual	<b>35% (2018)</b> <b>34% (2017)</b> <b>32% (2016)</b> <b>33% (2015)</b> <b>30% (2014)</b>	36% (2018) 37% (2017) 37% (2016) 34% (2015) 29% (2014)
Smith et al (2019)	Annual	<b>33.1% (2018)</b> <b>31.8% (2017)</b> <b>31.4% (2016)</b> <b>31.4% (2015)</b> <b>30.2% (2007-2014)</b>	39% (2018) 33% (2017) 34% (2016) 32% (2015) 21% (2014)

# Gender and narrative marginalisation

Vocal

Relational



Source: USC Annenberg Inclusion Initiative



# Gender and narrative marginalisation

Vocal

Relational

- The male gaze (Mulvey 1975)
  - Active/passive, subject/object, acting/being acted upon.
  - “To-be-looked-at-ness”.
  - “Absence, silence and marginality” (Kaplan 1983).
- Not much empirical research into this problem (O’Meara 2016).
- Does 30% of speaking characters equate to 30% of lines?

# Gender and narrative marginalisation

Vocal

Relational

- Post-feminism
  - “post-feminism positively draws on and invokes feminism as that which can be taken into account, to suggest that equality is achieved, in order to install a whole repertoire of new meanings which emphasise that it is no longer needed, it [feminism] is a spent force” (McRobbie 2004, 255).

# Gender and narrative marginalisation

Vocal

Relational

- Post-feminism
  - Appropriation of feminist discourse.
    - ↳ Depoliticised and individualised.
  - Empowerment is celebrated as a goal in post-feminist culture, though “the empowerment aimed for is most often personal and individual, not one that emerges from collective struggle or civic participation” (Banet-Weiser 2012, 16).

# Gender and narrative marginalisation

Vocal

Relational

- Post-feminism
  - Trend in Hollywood of “paying lip service” to feminism “by inserting a strong woman character into the narrative” where there previously would have been none (Press and Liebes 2016, 270).
  - “[A]s was the case with many earlier postfeminist screen heroines, Karen is a competent professional, an FBI marshal. She has her own small shiny gun, given her by her proud papa, but no mother or women friends” (Holmlund 2005, 118).

# Gender and narrative marginalisation

Vocal

Relational

- Modes of empowerment
  - Sutherland and Feltey (2016)
    - ↳ Amy Allen (1998)
      - ↳ Power-over
      - ↳ Power-to
      - ↳ **Power-with**
  - In Hollywood “empowerment is packaged as individualism; challenges are resolved through individual perseverance, strength, and exceptionalism. Rare are the stories of collective struggle for social justice; even rarer are stories about women’s collaborative efforts to challenge patriarchal social structures” (Sutherland and Feltey 2016, 11).

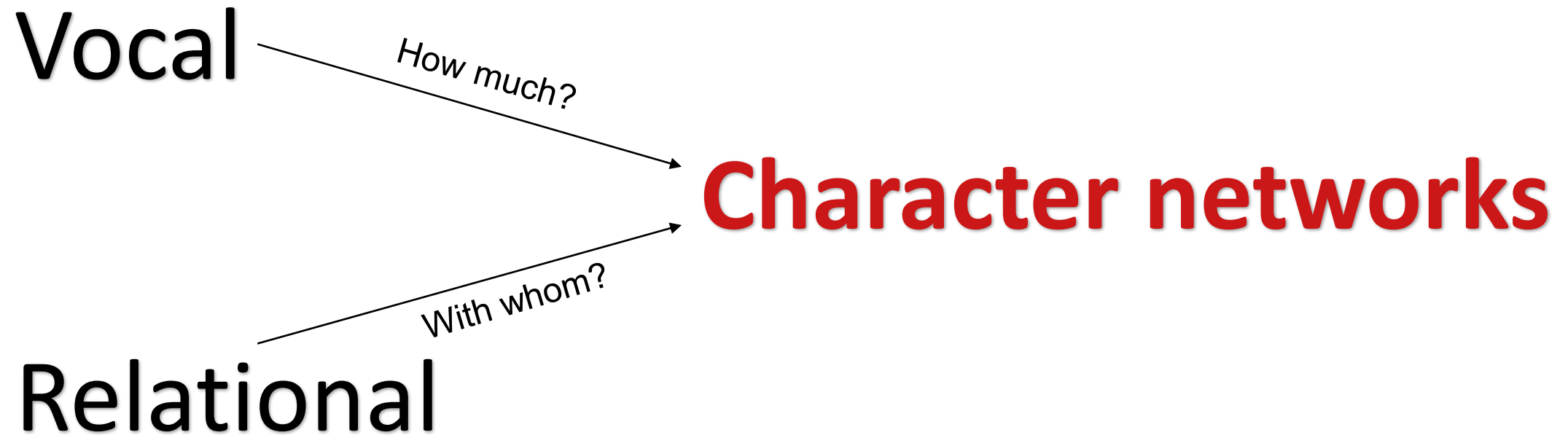
# Gender and narrative marginalisation

Vocal

Relational

- Scholarship has focused on individual characters.
  - ↳ the “strong female character”
- Kaplan: emphasis “on the larger structuring of the narrative and on the placement of the woman within that narrative” ... “on the positioning of women within a text” (Kaplan 1983, 2).
- Literature on female friendship mostly concerned with *female friendship films*.

# Gender and narrative marginalisation



# Character networks

- Drawing on social network analysis
  - How are individuals embedded within social structures consisting of interpersonal relations and interactions?
    - Homophily
    - Centrality
    - Balance
    - Social capital
  - Typically represented as a graph with a set of actors (e.g. individuals) and a set of links between them.
- A character network is a network wherein the nodes are characters in a fictional text.



# Character networks

- Not a new idea
- Contributions mainly from fields of computational linguistics, artificial intelligence research, digital humanities, and literary analysis.
- Mostly concerned with literature

e.g.:

- Agarwal et al. 2012;
- Elson et al. 2010;
- Fischer et al. 2017;
- Grayson et al. 2016;
- Kydros et al. 2015;
- Jayannavar et al 2015;
- Min and Park 2016;
- Moretti 2011;
- Ruegg and Lee 2019;
- Sack 2014;
- Waumans et al. 2015.

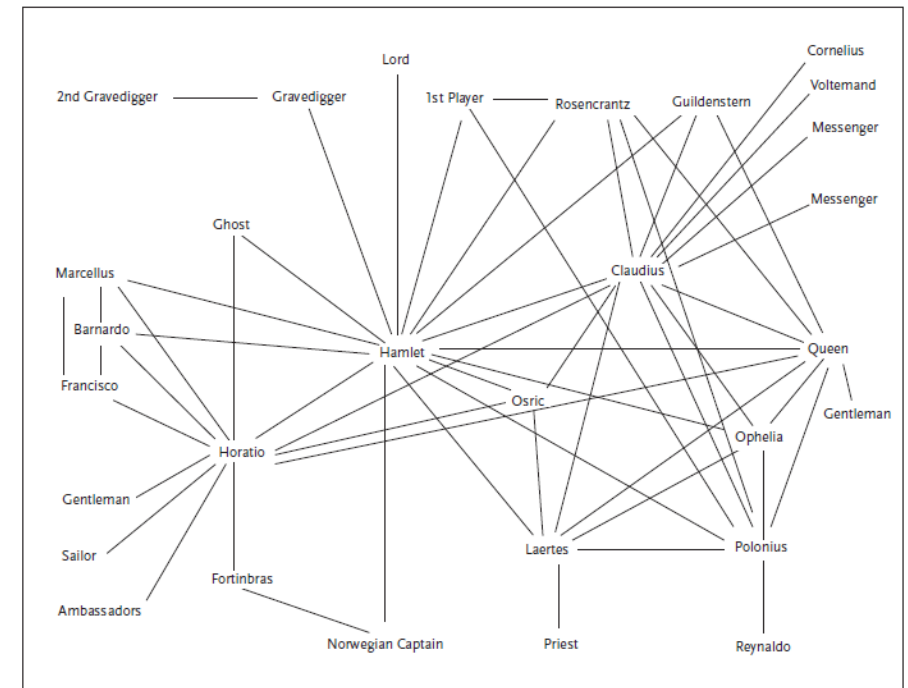
Less so for film (Agarwal et al. 2014; Gil et al. 2011; Kagan et al. 2019; Lv et al. 2018; Mourchid et al. 2018; Weng et al. 2009).

# Character networks

MORETTI: *Network Theory* 81

- Technical vs interpretive
- Moretti (2011)
- Draws on Woloch, who notes that “the emplacement of a character within the narrative form is largely comprised by his or her relative position vis-a-vis other characters” (2003, 18).

FIGURE 1. *The Hamlet network*



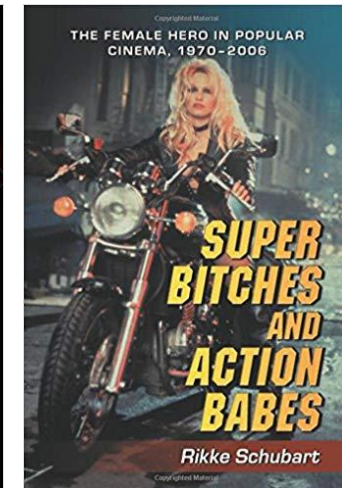
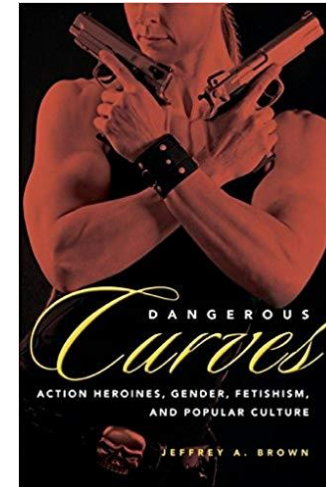
# Blockbuster women

- Popularity
- Women in action cinema
  - Sidekicks/romantic interests
  - Musculinity (Tasker 1993)
  - Figurative maleness (Hills 1999)
  - Action babes (O'Day 2004)
  - Ambivalence? Inadequacy of active/passive binary



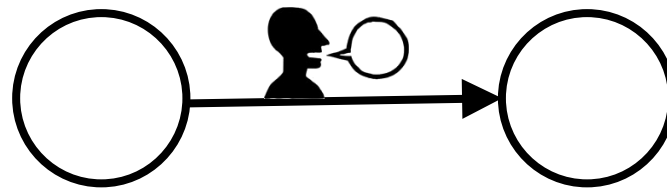
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  - Action babes (O'Day 2004)
  - Ambivalence? Inadequacy of active/passive binary
- Scholarship has focused on the female action hero



# Data collection method

- Each line recorded with a sender and receiver(s) – directed data.
- Line = a single continuous stream of speech; lines were defined as ending when the dialogue pauses to allow for a response, or the scene or topic changed notably.
- To be included in the network, a character must both speak and be named, and only intelligible lines of dialogue spoken by and to named speaking characters were recorded.



# An example: *Wonder Woman* (2017)

- Became the highest-grossing superhero origin story of all time globally (\$821m).
- Highest-grossing film directed by a woman.



Source: <https://www.themarysue.com/5-ways-steve-trevor-returns/>

See Jones, Pete. 2018. "Diana in the World of Men: a character network approach to analysing gendered vocal representation in *Wonder Woman*." *Feminist Media Studies*, DOI: 10.1080/14680777.2018.1510846



# An example: *Wonder Woman* (2017)

- 93% fresh on Rotten Tomatoes
- Critics have called the film:
  - “a masterpiece of subversive feminism” (Zoe Williams 2017),
  - “[pretty much] the best that Hollywood can deliver” (Joe Morgenstern 2017),
  - a “triumph” (Frank Bruni 2017),
  - and “a thrillingly staged knockout blow for feminism” (Robbie Collin 2017).



Source: <https://www.themarysue.com/5-ways-steve-trevor-returns/>

See Jones, Pete. 2018. “Diana in the World of Men: a character network approach to analysing gendered vocal representation in *Wonder Woman*.” *Feminist Media Studies*, DOI: 10.1080/14680777.2018.1510846

# An example: *Wonder Woman* (2017)

- Frank Bruni (New York Times review):
  - “It’s an equally important step toward more big-screen portrayals of female characters as strong, independent leaders.”
- Jenkins – TIME POTY 2017 runner up.
  - “The director redefining how the world sees women.”
- Toby Emmerich (WB president and chief content officer):
  - ““What the heck happened with *Wonder Woman*, and how do we get in on that action?”” (Lang 2017).

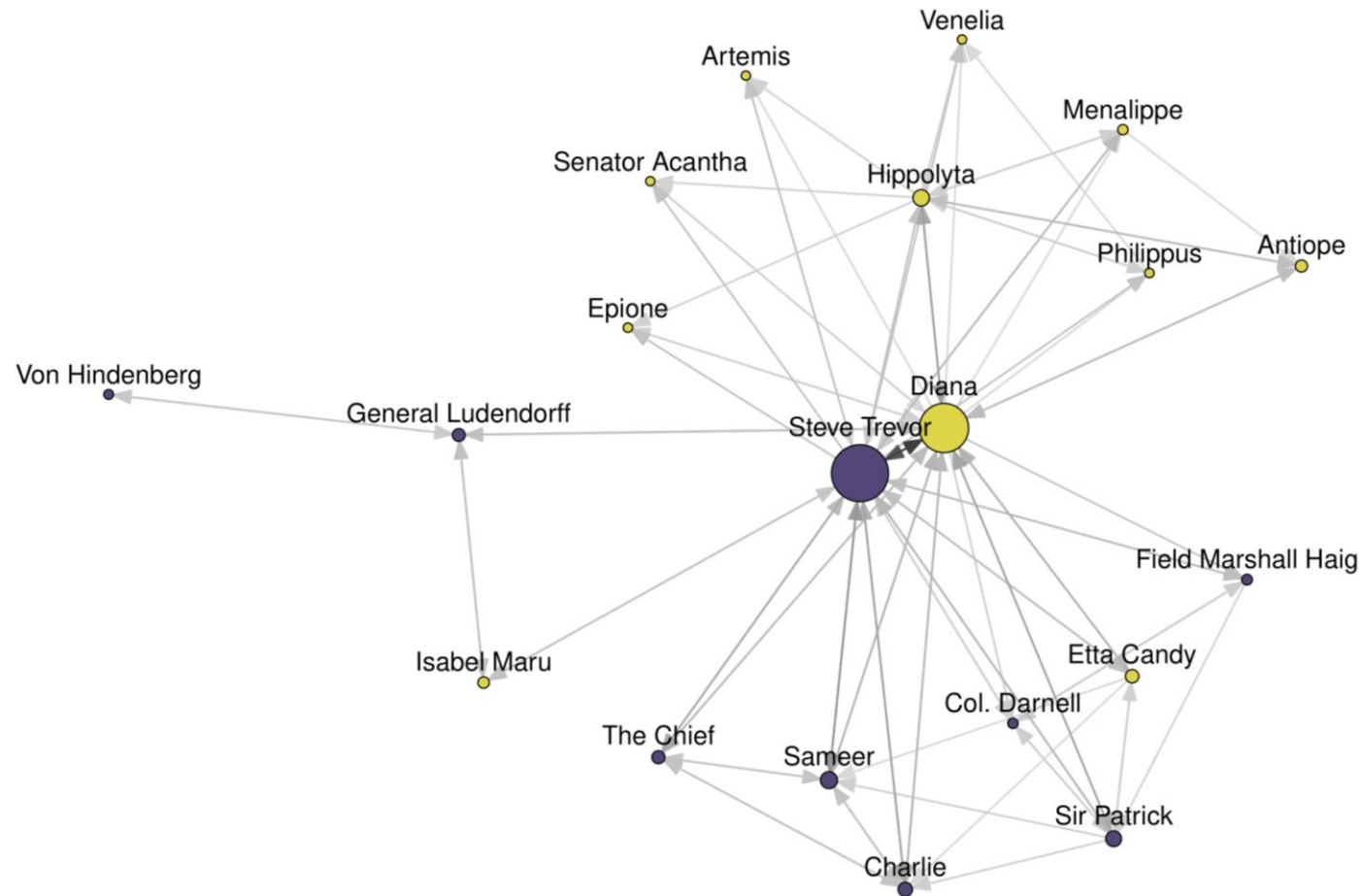


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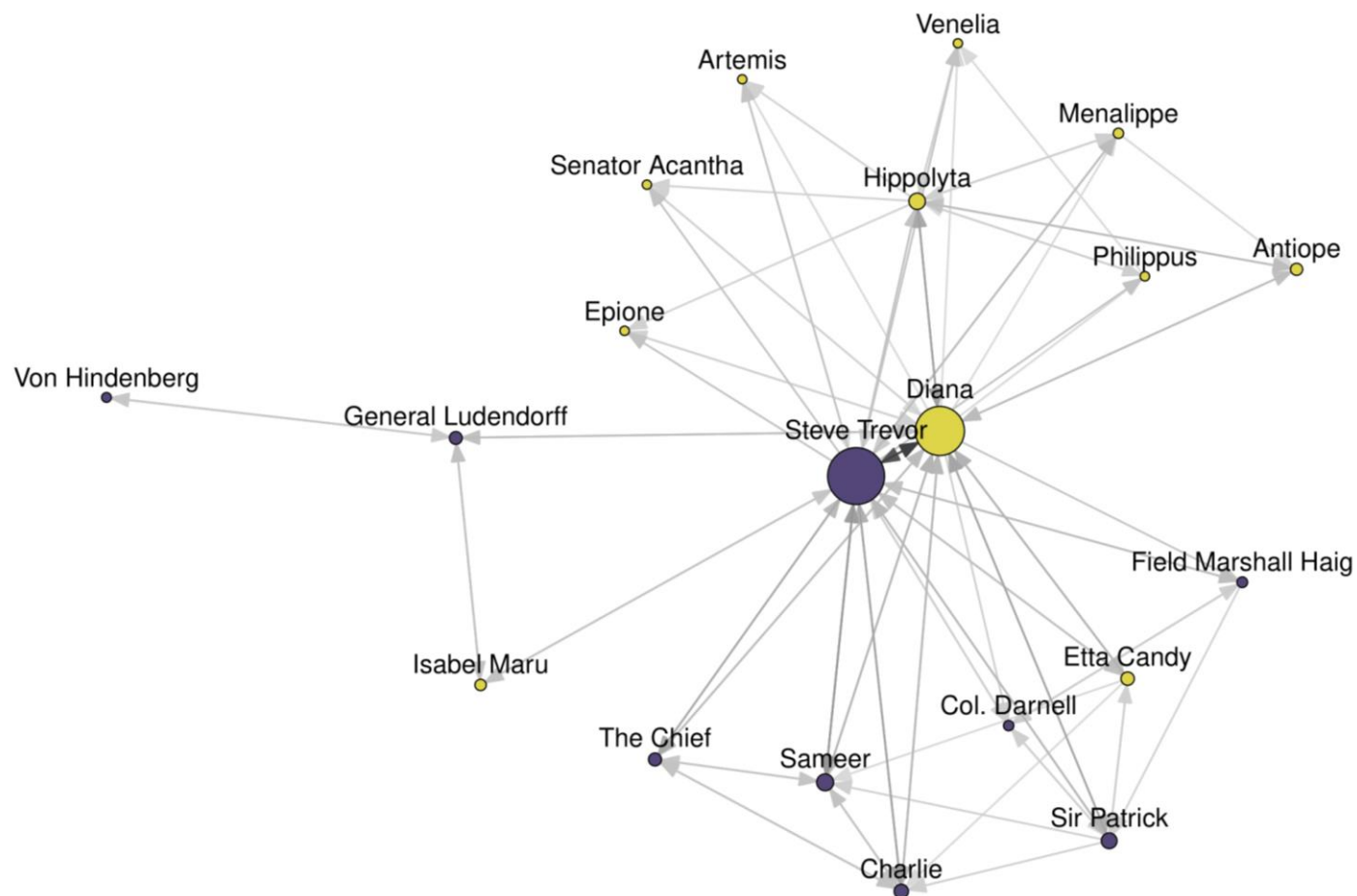
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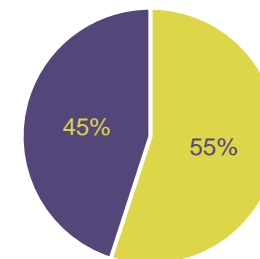
# *Wonder Woman*



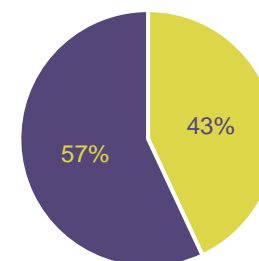
# Wonder Woman



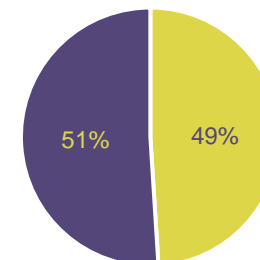
### Proportion of named speaking characters that are male and female



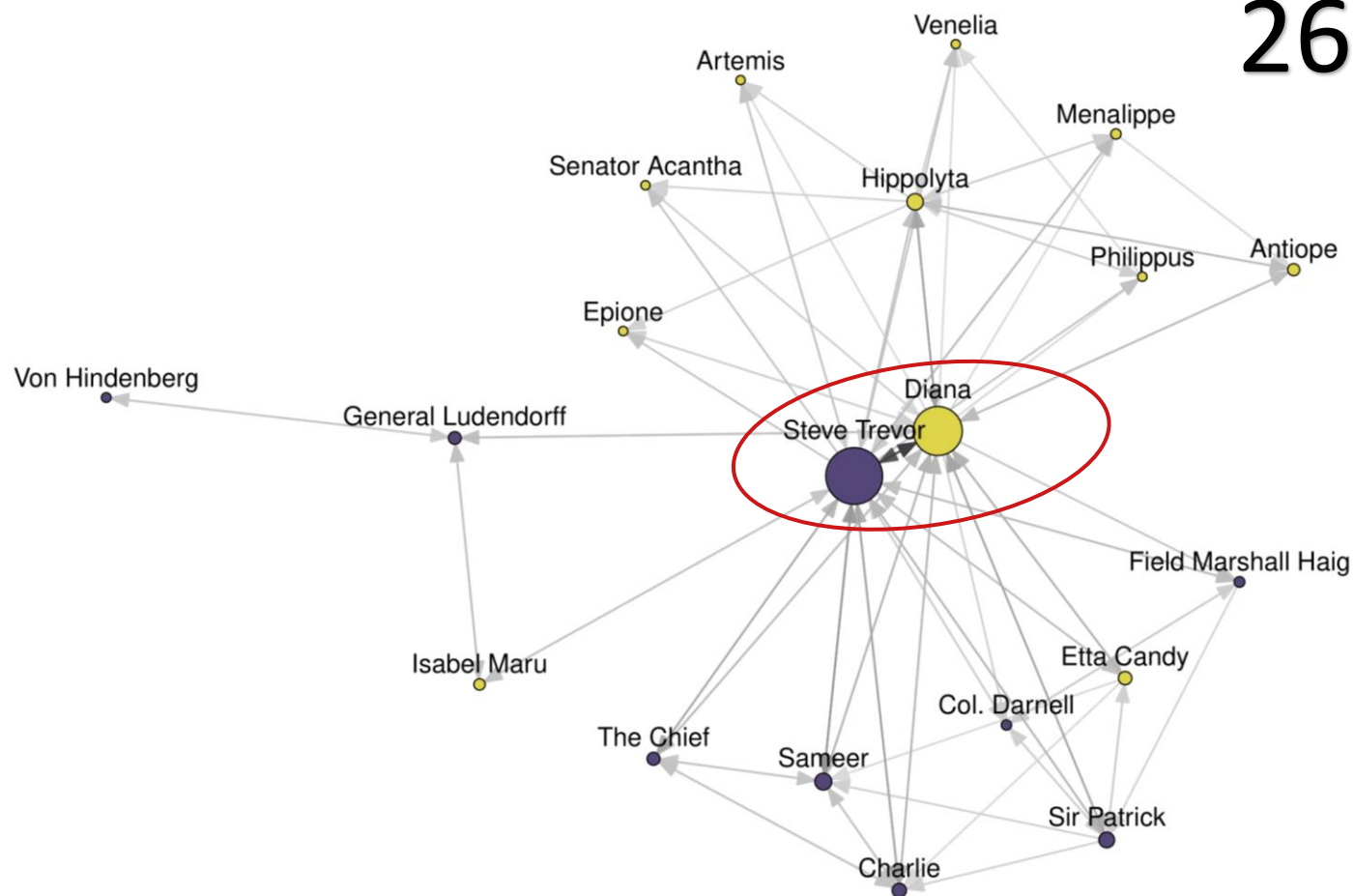
### Proportion of lines spoken by males and females



### Proportion of male and female recipients of lines of dialogue



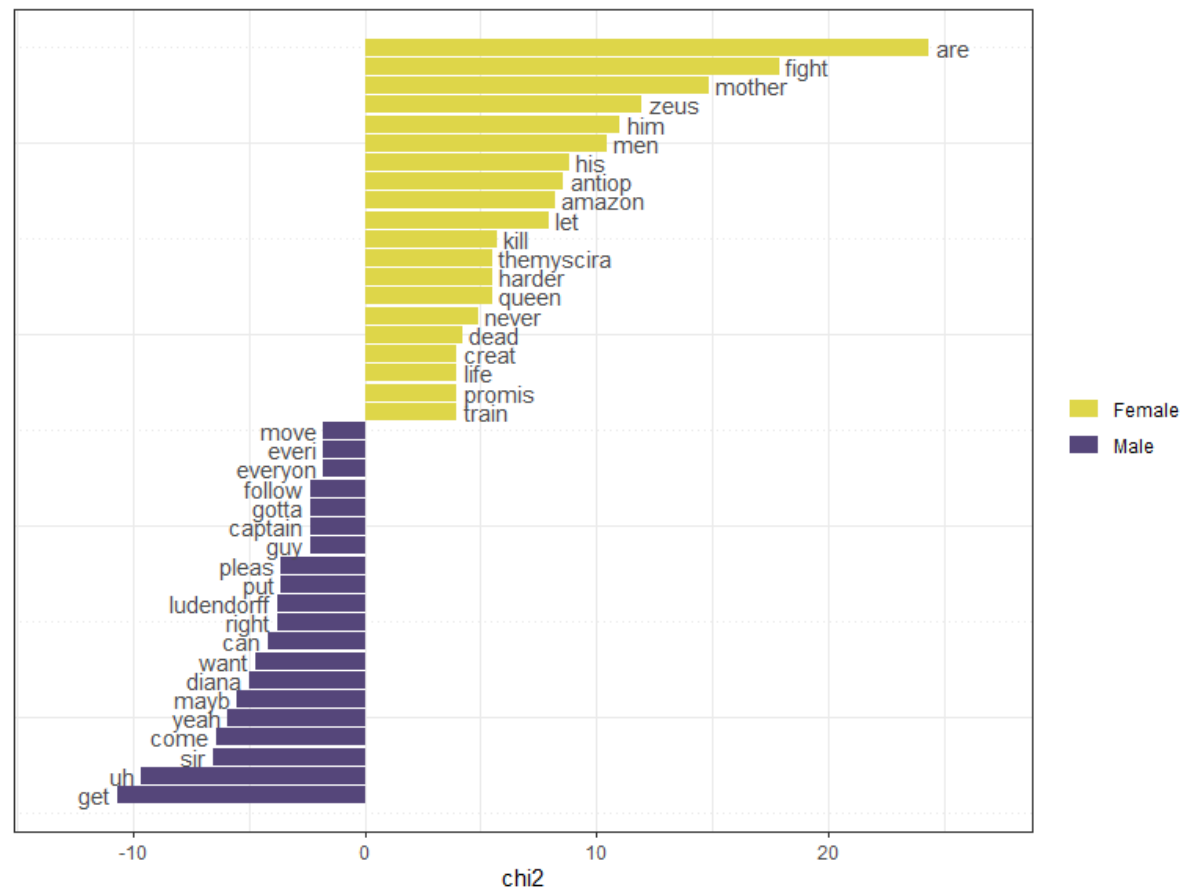
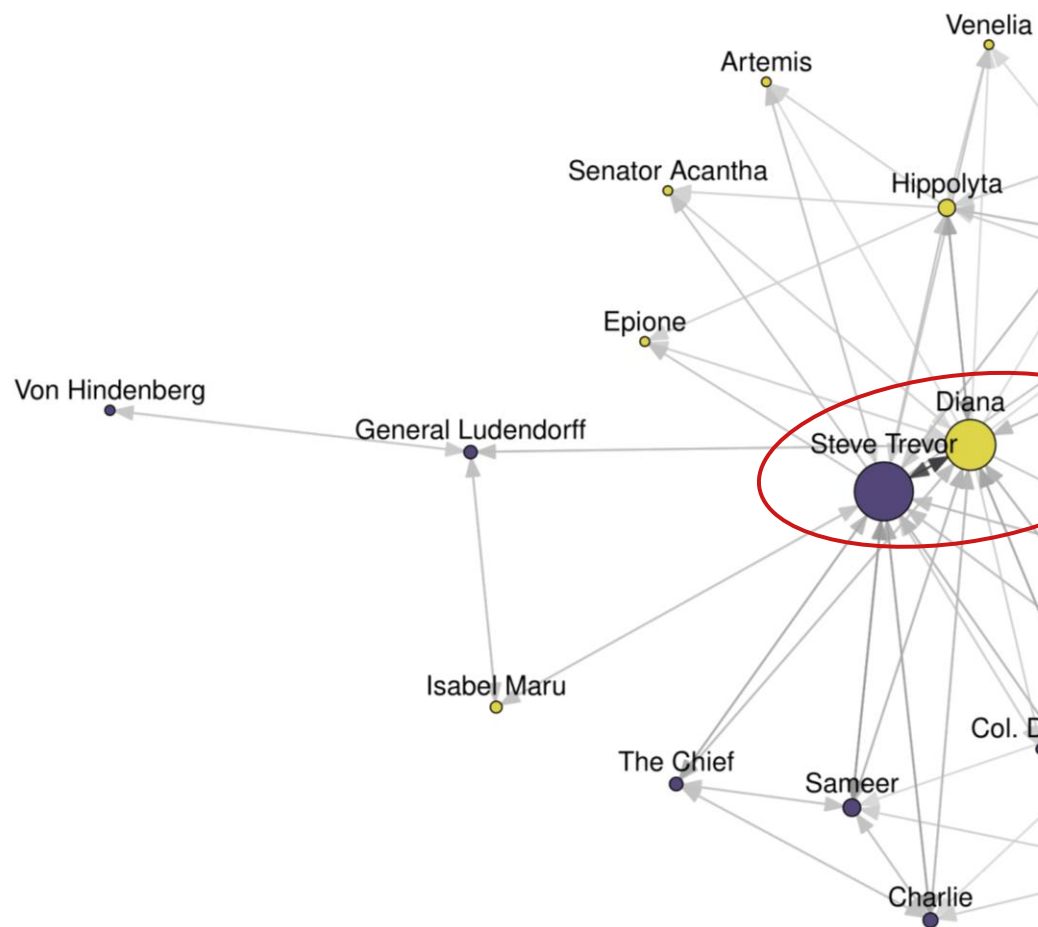
# Wonder Woman



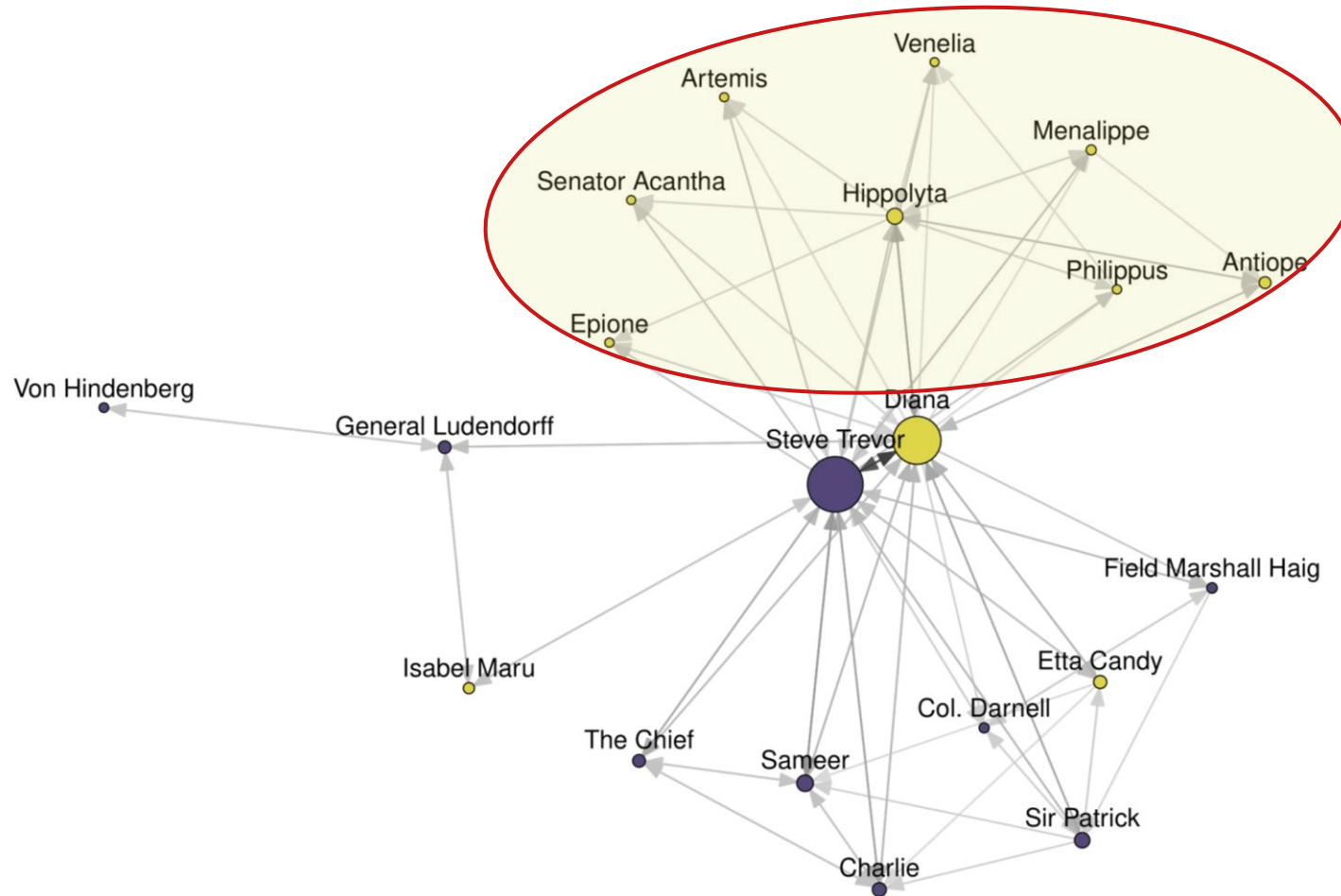
265 lines      222 lines



# Wonder Woman



# Wonder Woman



- Power-with
  - These characters do not appear in the final 102 minutes of the film.
  - This leaves two women with whom Diana might interact (Dr. Maru and Etta Candy).
  - Diana only interacts with one of the two.
- Where are the opportunities for collective empowerment in the narrative?

# Comparison: *Thor* (2011)

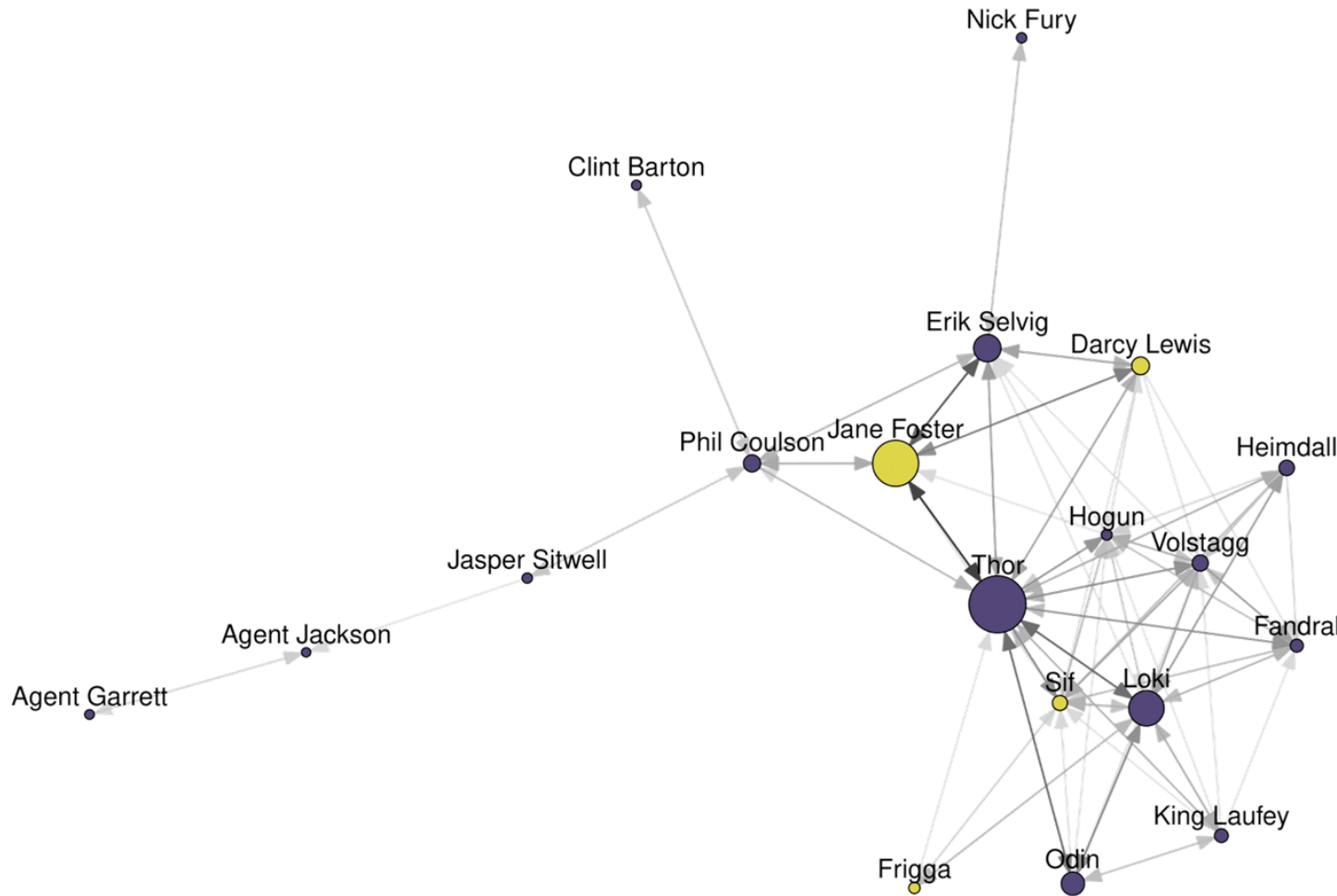


Source: <https://www.throwdown815.com/single-post/mcu/thor>

- Natural point of comparison.
  - Similar stories.
  - Similar budget, marketing, audiences.



# Comparison: *Thor* (2011)



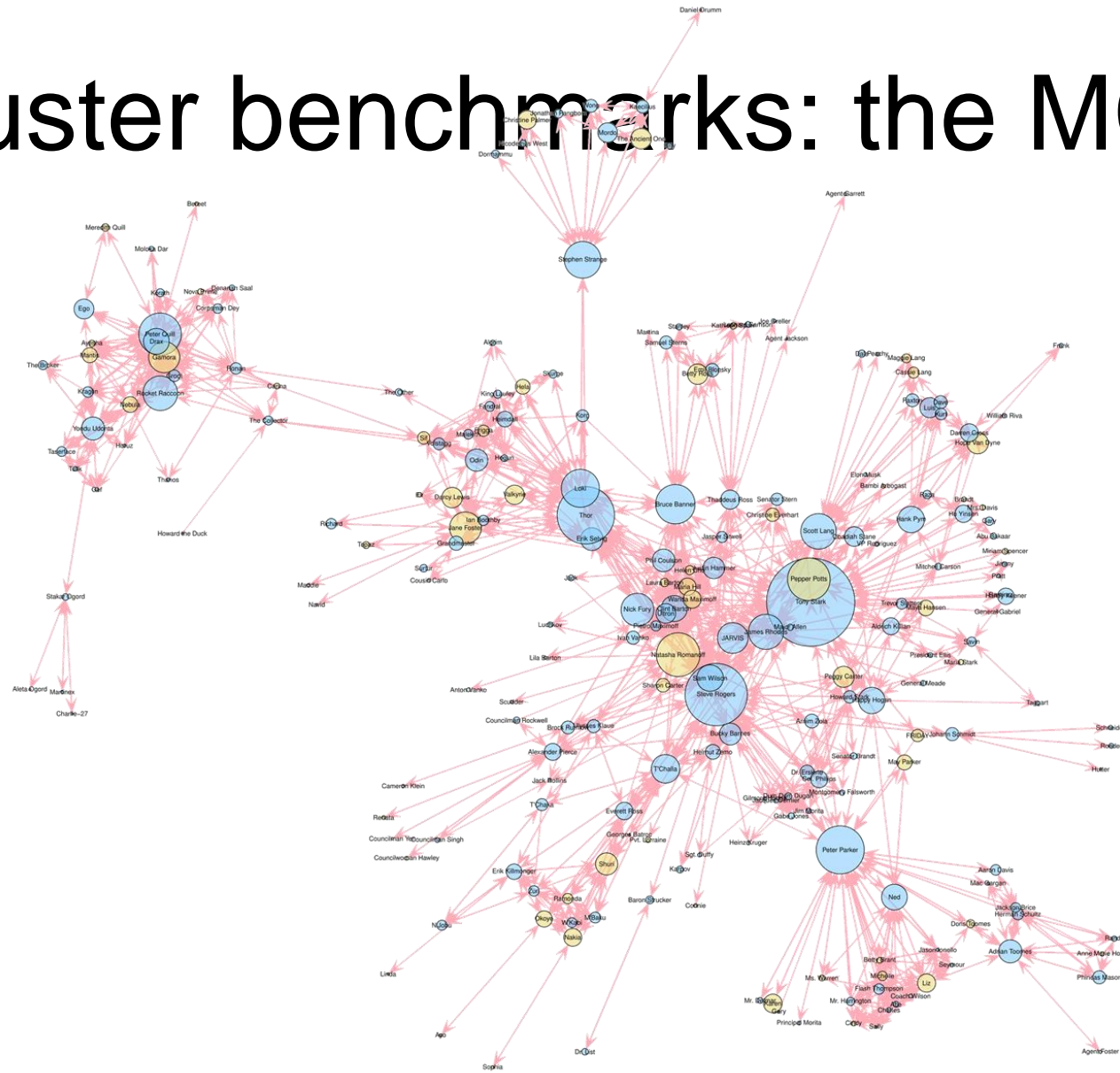
- Less centralised.
- Jane does not reinforce Thor's ties.
- Jane speaks fewer lines than Thor.
  - Thor speaks fewer lines in this movie than typical hero.

# Blockbuster benchmarks: the MCU

- 18 films (from 2008's Iron Man to 2018's Black Panther)
  - None of which are female-led
- Some descriptives:
  - No. lines of dialogue: 13,614.
  - No. named speaking characters: 234.
  - No. female named speaking characters: 65 (27.8%).
  - Percentage of lines spoken by females: 21.85%.
  - Females as a % of recipients of lines: 22.14%.



# Blockbuster benchmarks: the MCU

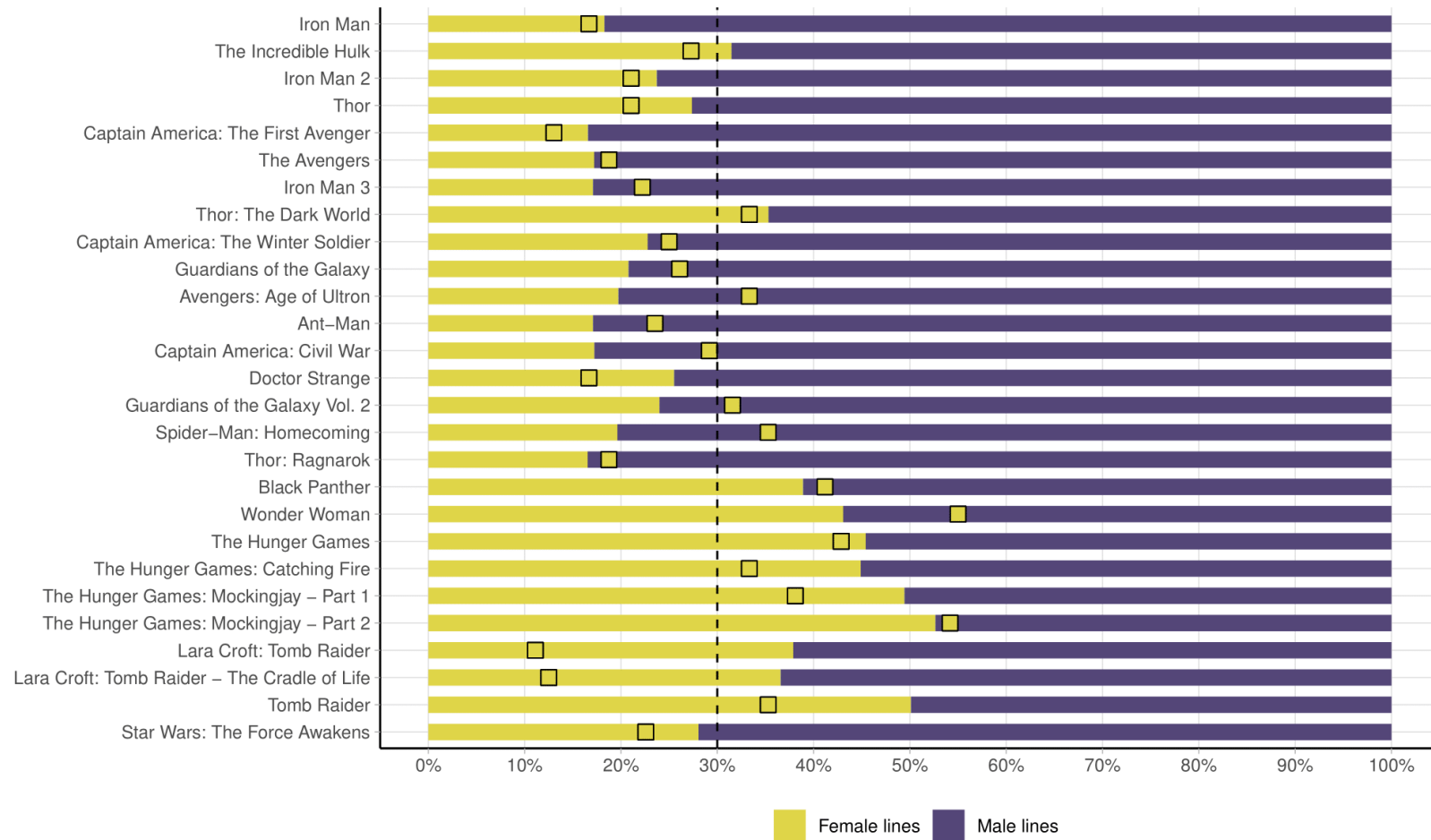


# Blockbuster benchmarks: “female-led”

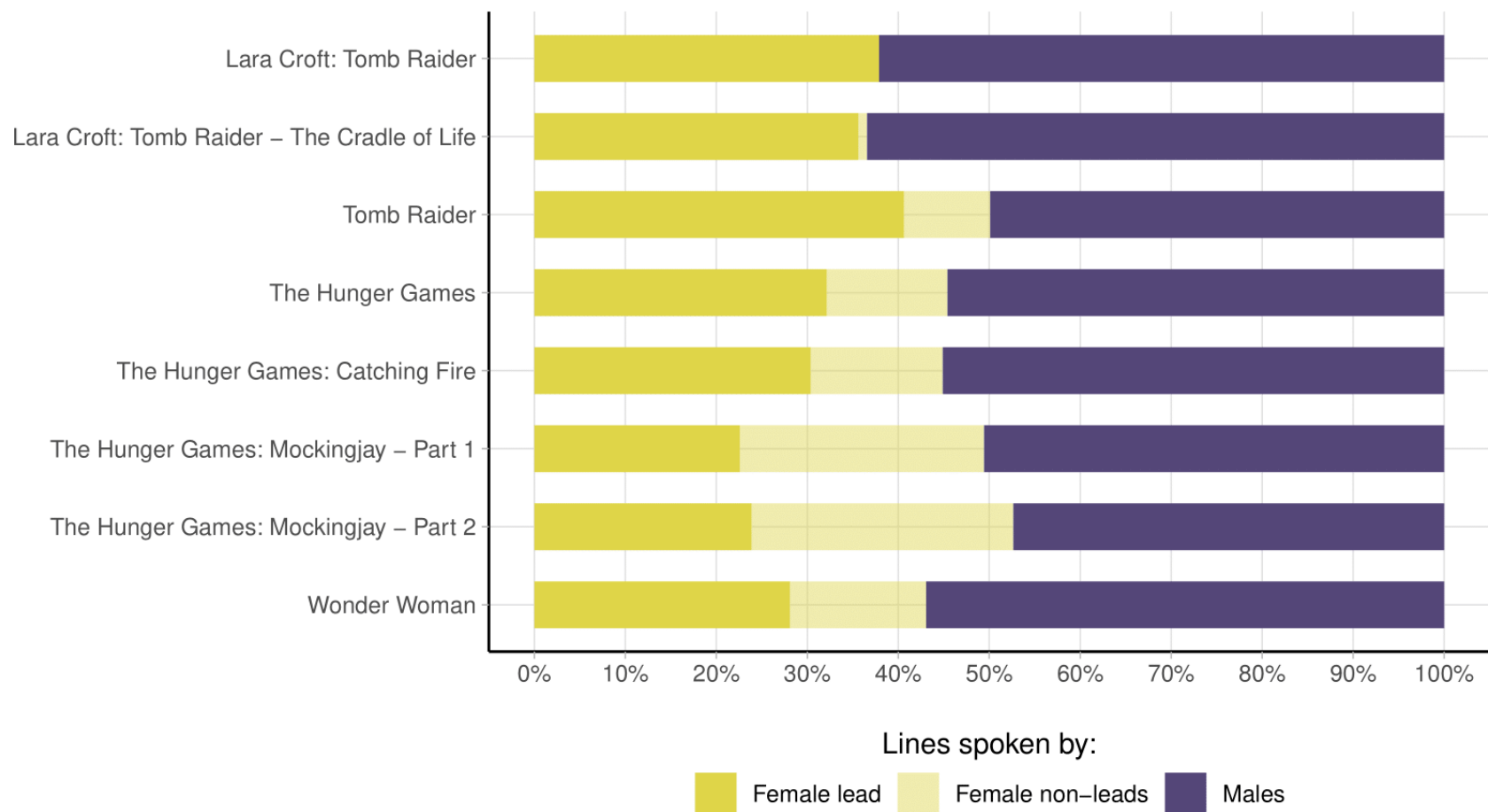
- Tomb Raider – action babe cinema
  - Lara Croft: Tomb Raider (2001)
  - Lara Croft: Tomb Raider – The Cradle of Life (2003)
  - Tomb Raider (2018)
- The Hunger Games – seen as potential turning point
  - The Hunger Games (2012)
  - The Hunger Games: Catching Fire (2013)
  - The Hunger Games: Mockingjay – Part 1 (2014)
  - The Hunger Games: Mockingjay – Part 2 (2015)

# Blockbuster benchmarks

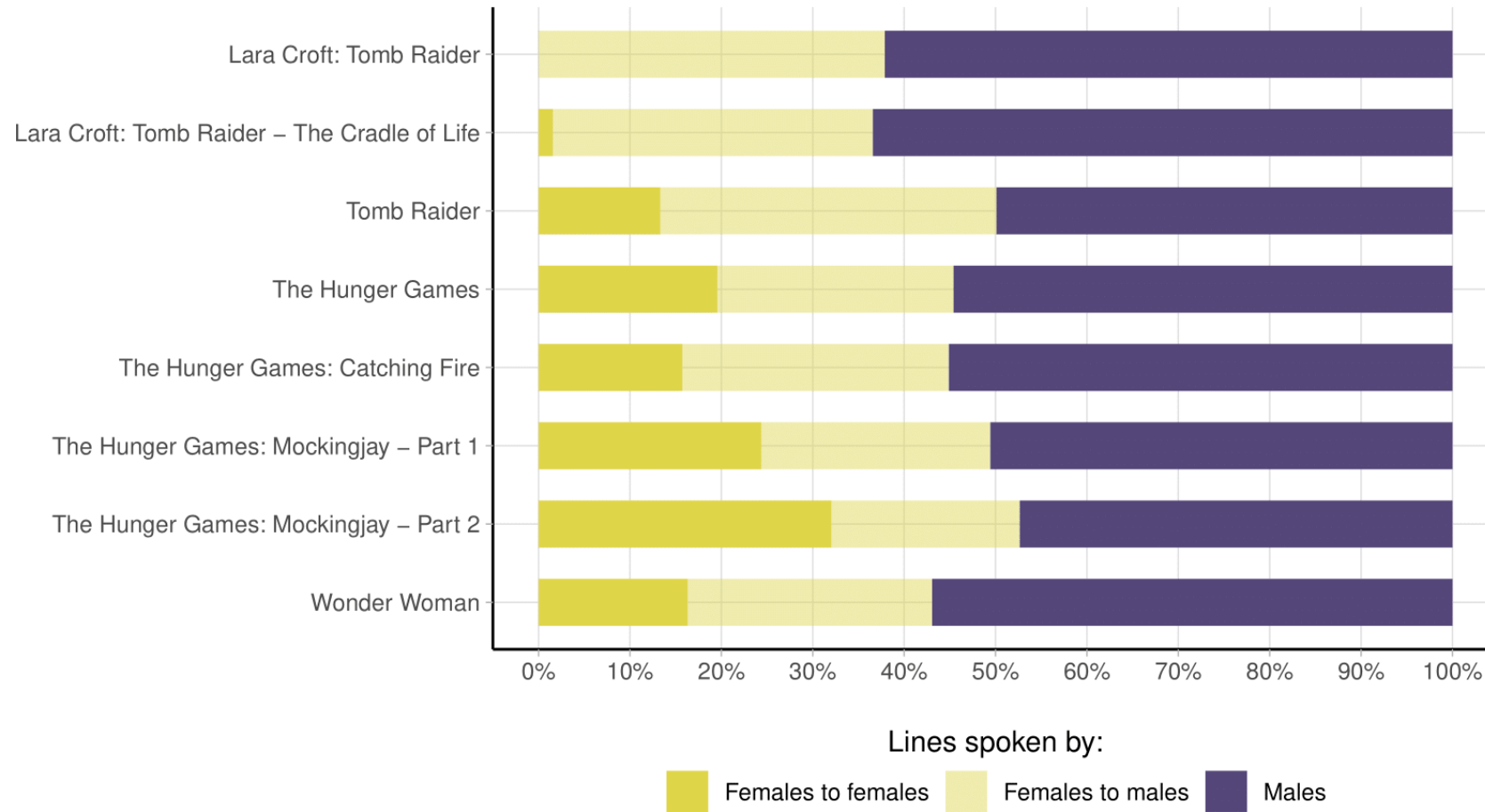
- More complex than proportions of speaking characters.



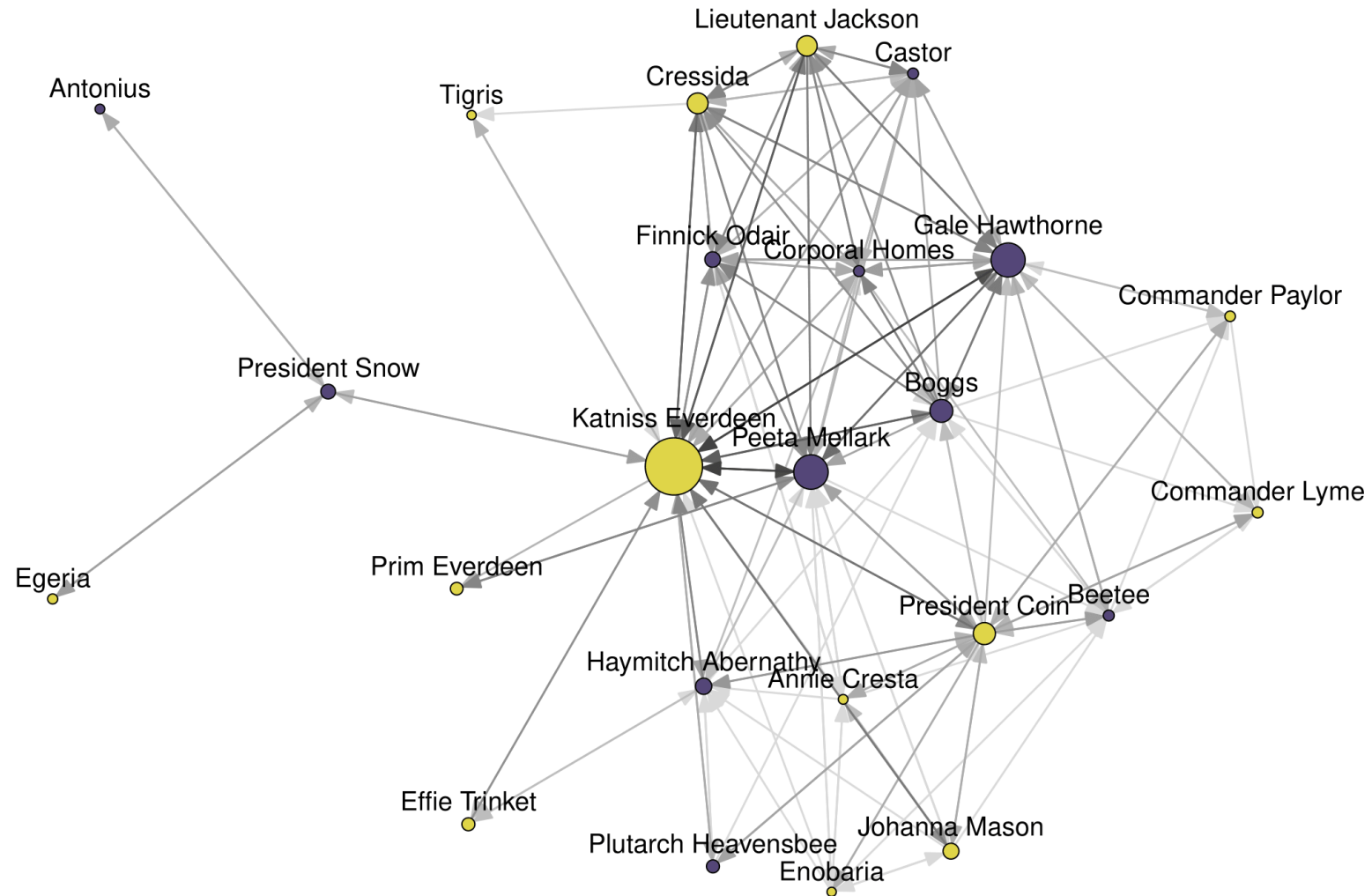
# “Female-led”



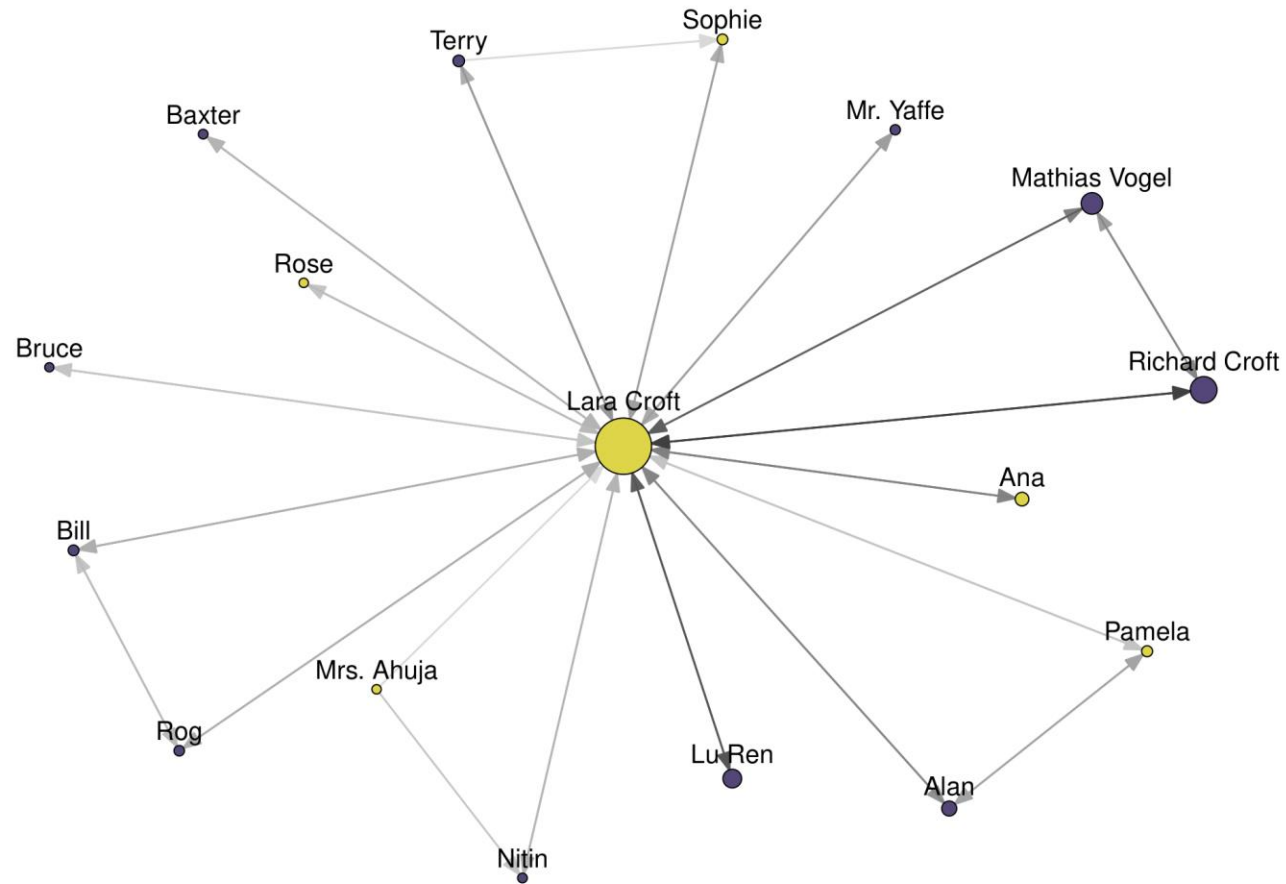
# “Female-led”



# THG: Mockingjay – Part 2 (2015)



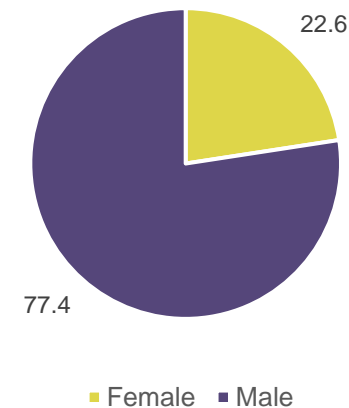
# Tomb Raider (2018)



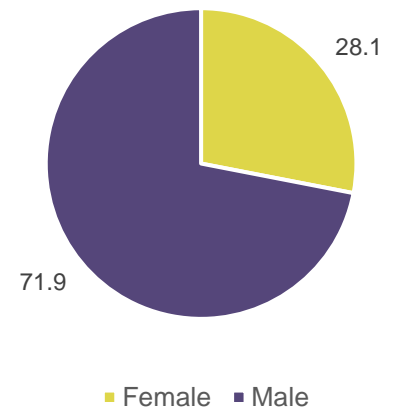
# *The Force Awakens* (2015)

- Following the film's release:
  - Rey was credited with “carrying the heavily-mantled weight of the new series” (Kermode 2015);
  - it was proclaimed that “Rey is clearly the main character and our destined-hero for this trilogy,” that “Star Wars has a female lead,” and that “the main male character is her sidekick” (Cox 2015);
  - there were claims that, in the film, “the male-centric universe of the original *Star Wars* gives way to a woman warrior and a female version of Yoda” (Roddy 2015),
  - and claims that “the plot of *The Force Awakens*, in fact, revolves around [Rey's abilities]” (Garber 2015).

% of characters by gender



% of lines spoken by gender



0.02% of lines spoken by a woman to a woman

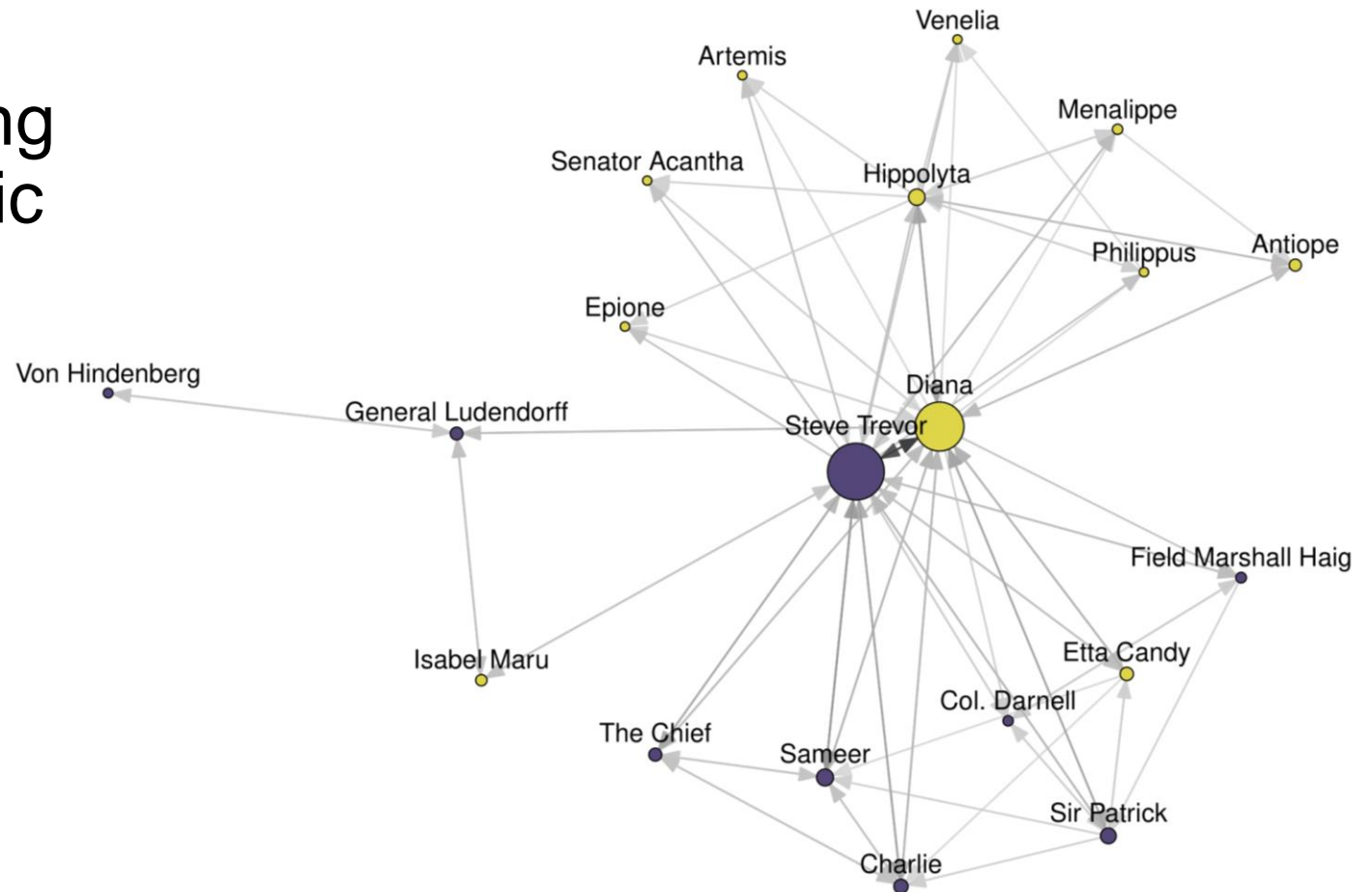


# Implications/reflections

- Strong female characters only take us so far.
- Ostensibly empowered female characters can be undermined through relational aspects of representation.
- What do we mean by “female-led”?
- Opportunities for collective empowerment remain limited in Hollywood blockbuster cinema.

# Representing narratives as data

- So far I've been treating the networks as a static graph.
- The next step would typically be to use network metrics to analyse that graph.
  - Network structure vs narrative structure
- However...

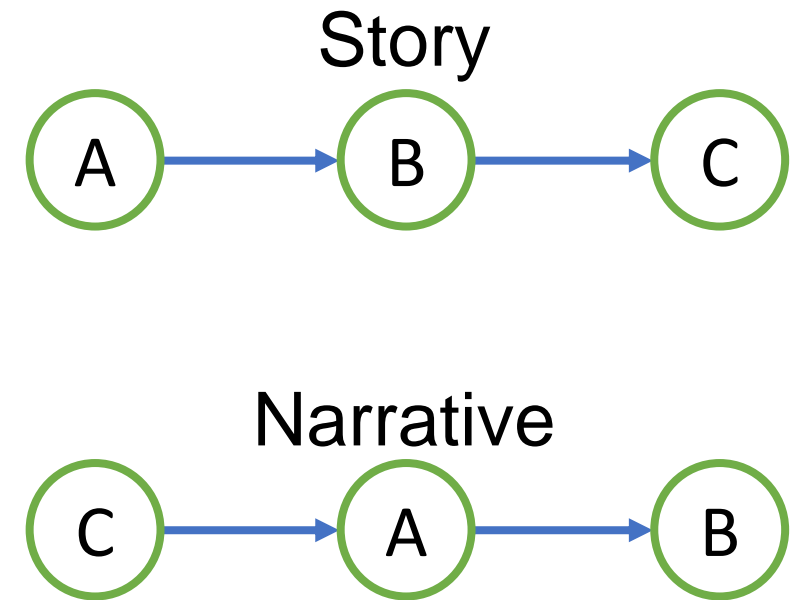


# Representing narratives as data

- The graph never exists in this state.
- Two options:
  - Aggregation
  - Dynamic network
- How we deal with this has direct implications for our ability to apply certain network analytical concepts and measures e.g. centrality (Falzon et al. 2018; Moody 2002).

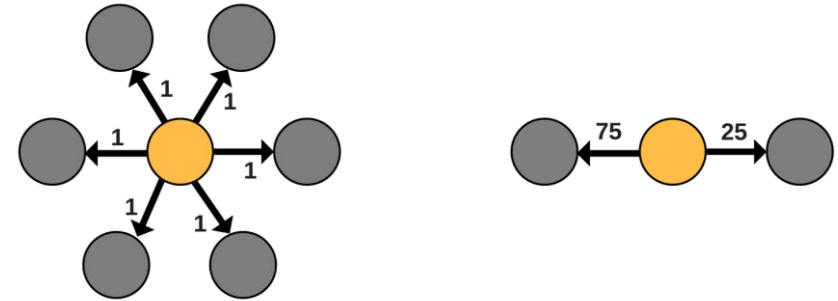
# Representing narratives as data

- The importance of temporal sequence is fundamental to almost all definitions of narrative (Abbott 2008; Bal 2017; Chatman 1980; Genette 1980; Ricoeur 1980).
- “[T]he appearance and ordering of story elements in the [narrative] discourse is critical to the process of comprehension” (Niehaus and Young 2014, 561).
  - **Permutations of sequence matter.**
- The elimination of time from the representation “is not only not sticking to the text, but is quite simply killing it” (Genette 1980, 35).
- Film narratives as **dynamic networks**.



# Example: centrality in character networks

- Existing approach has been **aggregate** and use off-the shelf measures.
  - e.g. degree, betweenness.
- Problems, e.g. degree.
- It does not make sense to talk about a character's position within a narrative as a fixed quality because character positioning evolves dynamically over the course of a narrative.
- How to take a dynamic network approach?



# Example: centrality in character networks

1. Ought to be dynamic and based on a temporally disaggregated network representation of the narrative text.
2. Ought to be linked to a character's narrative activity, in order to satisfy the idea of narratives as a distributed field of attention between characters.
  - When we focus on one character, we always do so at the expense of others.
3. Ought to take into account their position in the relational structure
  - Cognitive activity, "looking for relevance, testing each event for its pertinence to the action which the film (or scene, or character action) seems to be basically setting forth" (Bordwell 1985, 34).

# Proposing a dynamic centrality measure

$$C_{i,t}^{out} = C_{i,t-1}^{out} + \frac{\lambda}{\max(\sum_j^n x_{ij,t}, 1)} \sum_j^n C_{j,t-1}^{out} x_{ij,t}$$

$$C_{i,t}^{in} = C_{i,t-1}^{in} + \lambda \sum_j^n C_{j,t-1}^{in} x_{ji,t}$$

See Jones, Quinn and Koskinen (forthcoming).

# Permutations of sequence

- Consider two sequences:
  - (1)  $A \rightarrow B, B \rightarrow A, A \rightarrow B$
  - (2)  $A \rightarrow B, A \rightarrow B, B \rightarrow A$

Sequence	(1)		(2)	
Node	A	B	A	B
t=0	$C_A$	$C_B$	$C_A$	$C_B$
t=1	$C_A$	$C_B + \lambda C_A$	$C_A$	$C_B + \lambda C_A$
t=2	$C_A + \lambda C_B + \lambda^2 C_A$	$C_B + \lambda C_A$	$C_A$	$C_B + 2\lambda C_A$
t=3	$C_A + \lambda C_B + \lambda^2 C_A$	$C_B + 2\lambda C_A + \lambda^2 C_B + \lambda^3 C_A$	$C_A + \lambda C_B + 2\lambda^2 C_A$	$C_B + 2\lambda C_A$

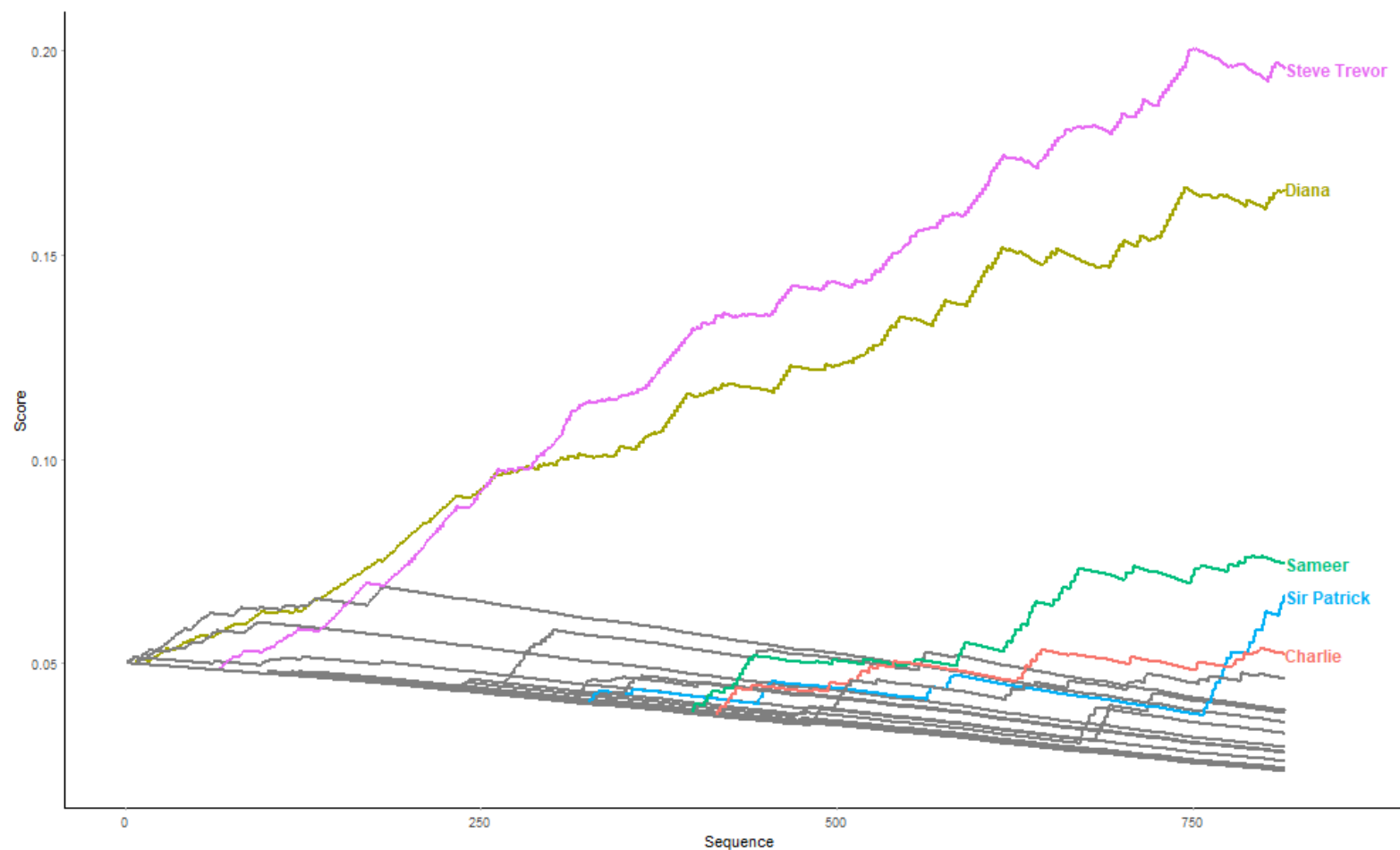


# Proposing a dynamic centrality measure

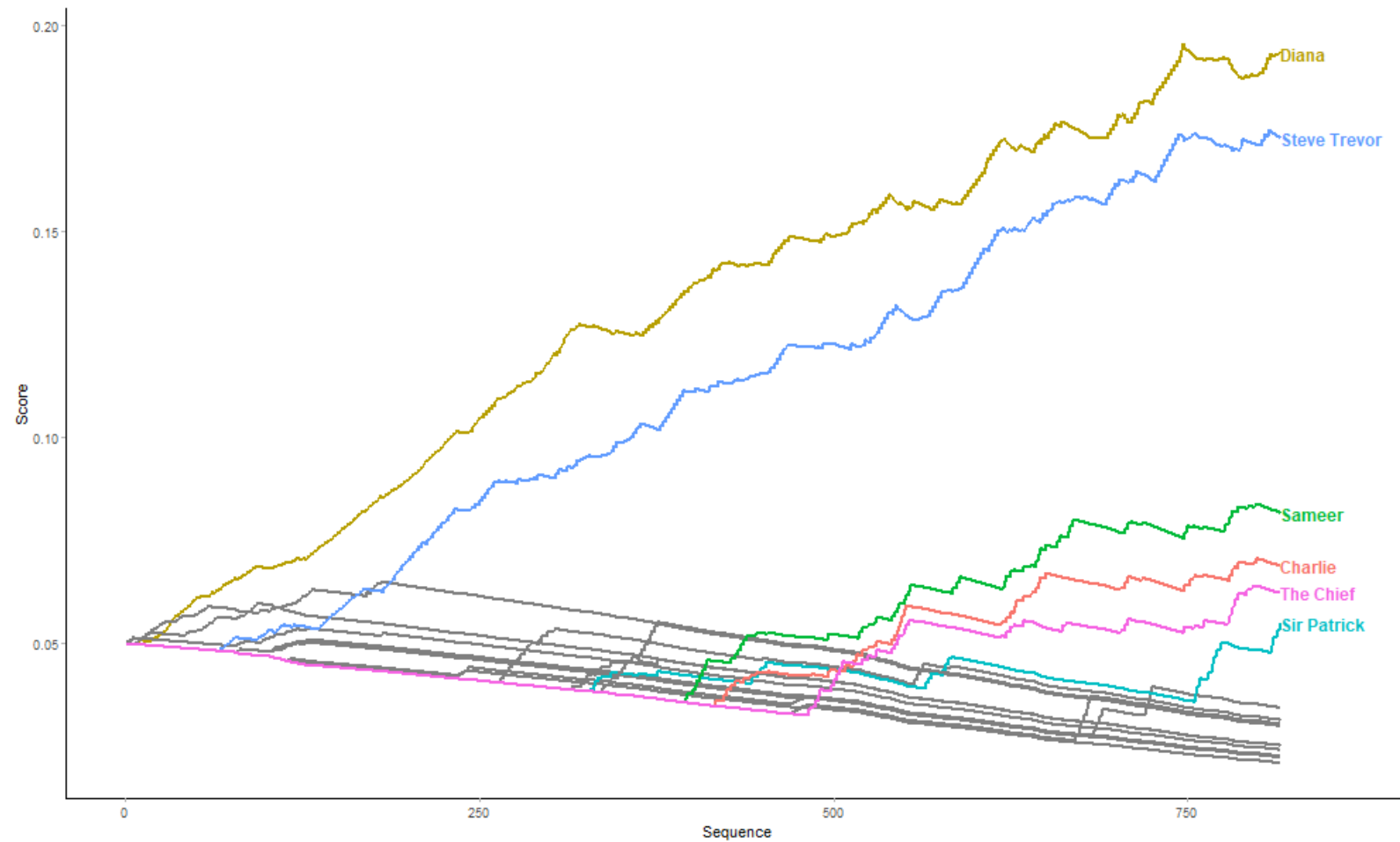
- $t=0$ 
  - Everybody starts the same.
  - 1 is as good a value as any.

$$\hat{C}_{i,t}^{out} = \frac{C_{i,t}^{out}}{\sum_i^n C_{i,t}^{out}}$$

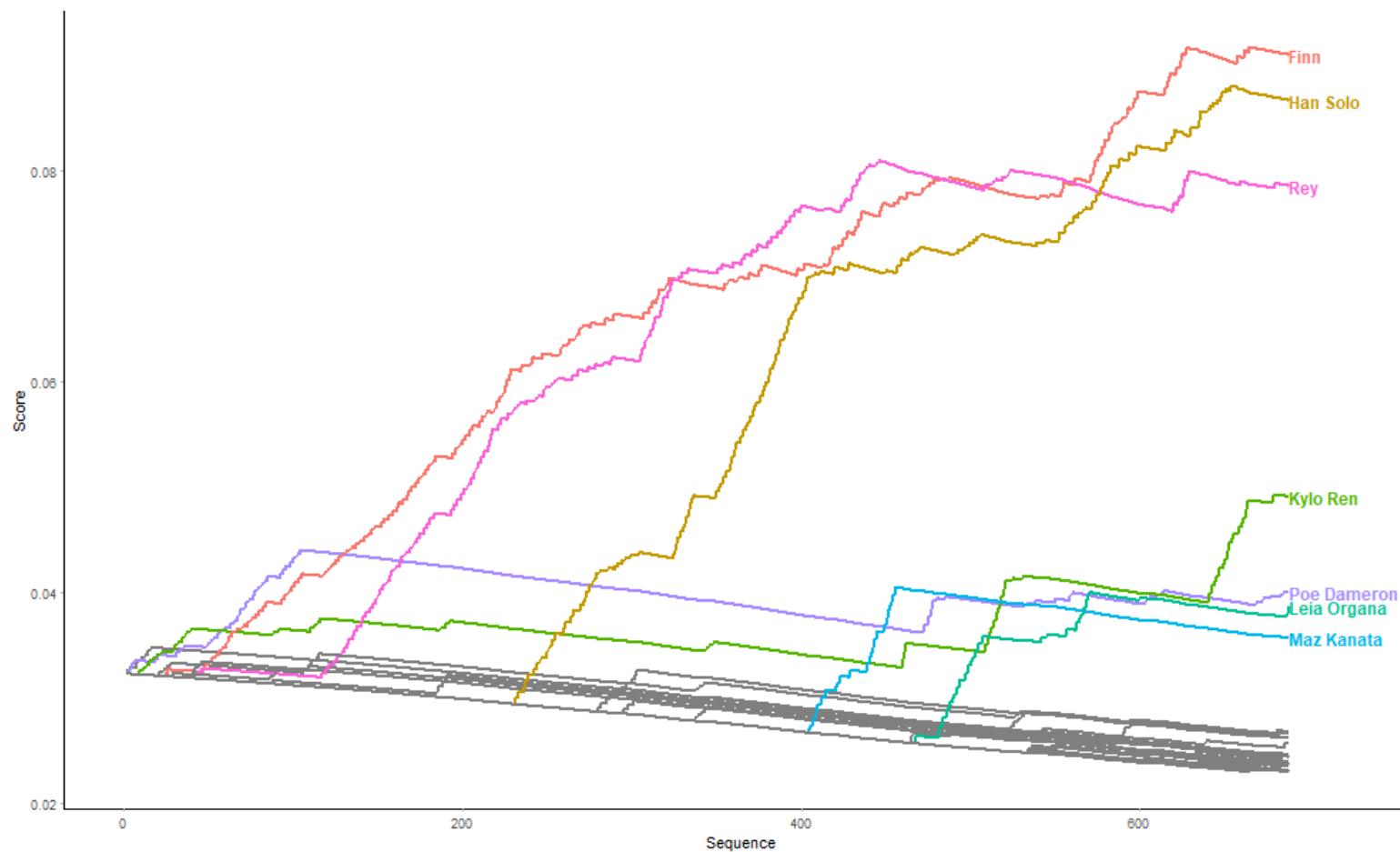
# Example: *Wonder Woman* (out; $\lambda=0.01$ )



# Example: *Wonder Woman* (in; $\lambda=0.01$ )



# *The Force Awakens* (out; $\lambda=0.01$ )



# Implications/reflections

- What this kind of dynamic approach achieves:
  - Situate claims about character centrality within the context of the dynamics of the narrative.
  - Narrative punishment / “fridging”.
  - Cumulative nature gives more weight to climactic narrative events.
  - Speaking vs spoken-to.
  - Tells us something about **how the story is told**.
  - In principle, extendable to any kind of media.
  - Not difficult to achieve computationally.
- Extends beyond centrality (e.g. relational event models).

# Wrapping up – some limitations

- Of course, dialogue can't capture everything, and there are other relevant factors which intersect with these questions (e.g. genre, race, visual aspects of representational empowerment).
- How best to incorporate the content of the interaction into this kind of approach?
- More data.



# Wrapping up - key points

- The relational perspectives of SNA can add significantly to our understanding of the problem.
  - ↳ Beyond the Bechdel test.
  - ↳ Beyond % of speaking characters.
  - ↳ Beyond the strong female character.
- More work needs to be done on how dynamic network approaches can unlock the complexity of narrative texts.

# Thanks for listening!

Questions/comments/feedback?



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