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Modelling Conflicts Between Characters in Present-Day Dutch Literary Fiction.

Critiques of literary representation
Literary studies has a long tradition of analysing texts from an ideological perspective. Inspired by feminist (Butler 1990), postcolonial (Said 1978) and Marxist (Eagleton 1976) strands of thinking, these so called critiques of literary representation have been focusing on hierarchies between genders, ethnicities, and classes in literary texts. One way in which these hierarchies can be traced is through comparatively analysing representations of characters with different demographic backgrounds. For the field of Dutch literature, a diverse range of detailed close readings have been conducted analysing the relative importance of certain represented identities as opposed to others (Pattynama 1994, Meijer 1996a, Meijer 1996b, Pattynama 1998, Minnaard 2010, Meijer 2011).

In recent years, quantitative methods such as social network analysis have made it possible to study character representation on a larger scale (Alberich e.a. 2002, Stiller et al 2003, Elson et al 2010, Lee & Yeung 2012, Karsdorp et al 2012, Agarwal et al 2013, Jayannavar et al 2015, Karsdorp et al. 2015, Lee & Wong 2016, Van der Deijl & Smeets 2018). Insights from e.g. network theory can lead to a broader understanding of the power dynamics between characters. Important aspects of these dynamics are positive (friends) and negative (enemies) relations between characters, as bonds and conflicts in networks are indicative of hierarchical oppositions between represented identities.

In order to gain an empirically informed understanding of character hierarchies in present-day Dutch literary fiction, the present paper models conflicts for all 2137 characters in a corpus of 170 novels that were submitted to one year (2012) of the Libris Literatuurprijs, one of the most prestigious literary prizes in the Dutch language area. It draws on extensive metadata from earlier research in which gender, descent, age, education and profession of all these characters were gathered (Van der Deijl, Pieterse, Prinse, Smeets 2016), as well on more recent research in which relational information (family, lover, colleague, friend, enemy) between these characters was collected (Volker & Smeets 2018).

Methodological design
Social networks for each of the 170 novels are semi-automatically extracted using the co-occurrence approach described in Smeets & Sanders 2018. These networks are used to model conflicts in two ways, the first of which focuses on conflicts between two characters (dyads), the second on conflicts between three characters (triads).

1. Conflict scores
   In earlier research (Smeets et al 2018), all characters were ranked with Python’s
NetworkX library (Hagberg et al 2008) for five basic network centrality metrics: degree, betweenness, closeness, eigenvector, and Katz. Each of these rankings are an indication of a certain aspect of a character’s relative importance in the story. For every dyad of enemies in the corpus, it is detected who the higher ranked character is. For each of the five centrality metrics, a character’s conflict score is incremented by 1 in case he/she is higher ranked than his enemy.

Finally, a multiple linear regression analysis is carried out to test the extent to which a character’s gender, descent, age or education is a predictor of his/her conflict score. The outcome of the regression analysis serves as an indicator of which represented identities are the more powerful ones in the conflict.

2. Social (im)balance
The social balance theory (Heider 1946) postulates that there is social balance in a triad when either all three nodes are friends, or when two friends share the same enemy. Conversely, it postulates that there is social imbalance when all three nodes are enemies, or when two enemies share the same friend. This is used as a theoretical framework for modelling conflict dynamics between subnetworks of three characters in the corpus.

For every enemy/friend triad, it is automatically established whether it is socially balanced or imbalanced according to the theory. It turns out that the majority of triads, 69%, is socially balanced as opposed to 31% of socially imbalanced triads. Among these two general categories of social balance and imbalance, fully positive and fully negative triads are most present (see Figure 1 for the absolute distributions per type). In light of authoritative narratological theories (Propp 1928, Greimas 1966), the prevalence of social balance is remarkable, as conflict is commonly esteemed to be one of the driving forces behind narrative action.

For the analysis of conflicts in individual novels, this observed pattern can be used as a general framework to contextualise and evaluate the particularity of (im)balanced triadic subnetworks. One such a contextualisation will be demonstrated by evaluating a single triad in light of the overall pattern.
Contribution to the field
In this paper the two models of conflict will be used to disentangle the complexities of power dynamics in character representation. We will assess the possibilities and challenges of our approach for critiques of literary representation that mainly use qualitative close reading methods. It will be argued that conflict situations co-shape the ideological representation of characters in literature, and the importance of a data-driven and empirically informed approach to character representation will be highlighted.

Keywords: conflict, social network analysis, Digital Literary Studies, Dutch literature

References
http://www.cs.columbia.edu/~apoorv/Homepage/Publications_files/MAIN.pdf


