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## Latent attitudes and their correlations on Semantic Networks

The rapid rise of social media platforms has created new opportunities to understand public sentiment on complex social issues like migration. Unlike traditional methods, such as structured questionnaires, that have long been used to uncover underlying attitudes, social media offers a rich and evolving source of unstructured text that reflects real-time, spontaneous public opinion. Surveys that combine open-ended questions with structured scales, such as the Semantic Differential and the Bogardus Social Distance Scale, provide a way to quantify these underlying attitudes. When analyzed through models like the Graded Response Model (GRM) within the Item Response Theory (IRT) framework, these instruments can reveal traits about respondents' views on migration. However, the informal and organic nature of social media discourse offers an additional, valuable layer of insight into how people express and share their attitudes in public forums. This study investigates the relationship between latent attitudes captured through traditional questionnaires fulfilled through social media platform and the semantic patterns present in open-ended responses of the same questionnaires. By constructing a semantic network from these responses, we assess how closely the structure of the network correlates with the latent traits estimated from questionnaire data. This evaluation allows us to determine whether the semantic network encodes meaningful information about respondents' attitudes. If so, it opens the door to semi-supervised learning approaches that can infer latent traits directly from textual data, offering a scalable alternative for attitude measurement beyond conventional survey methods even on social media content and comments.

### Keywords/Topics

Semantic network, latent traits

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