

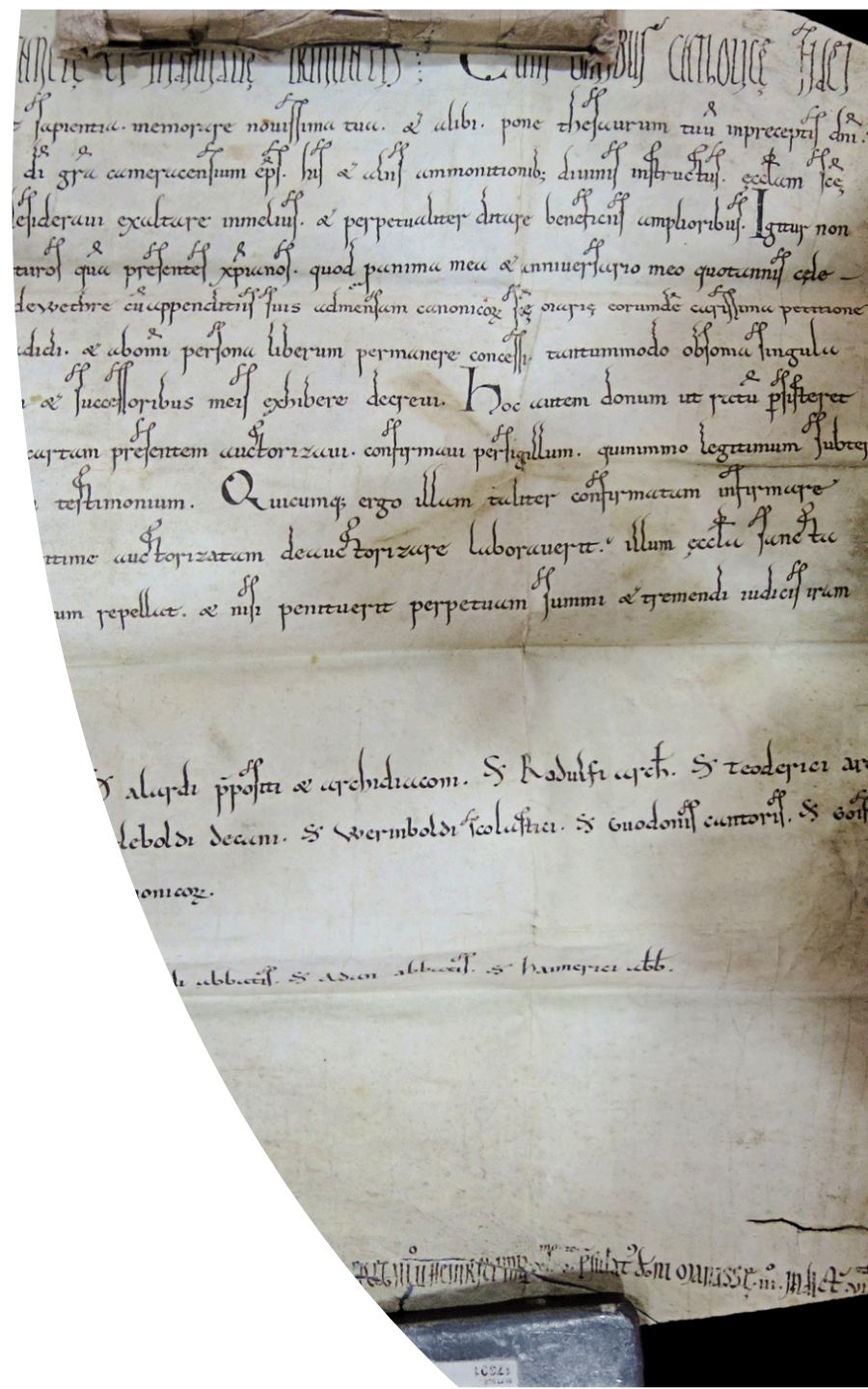
# Dealing with the Heterogeneity of Interpersonal Relationships in the Middle Ages

## A Multi-Layer Network Approach

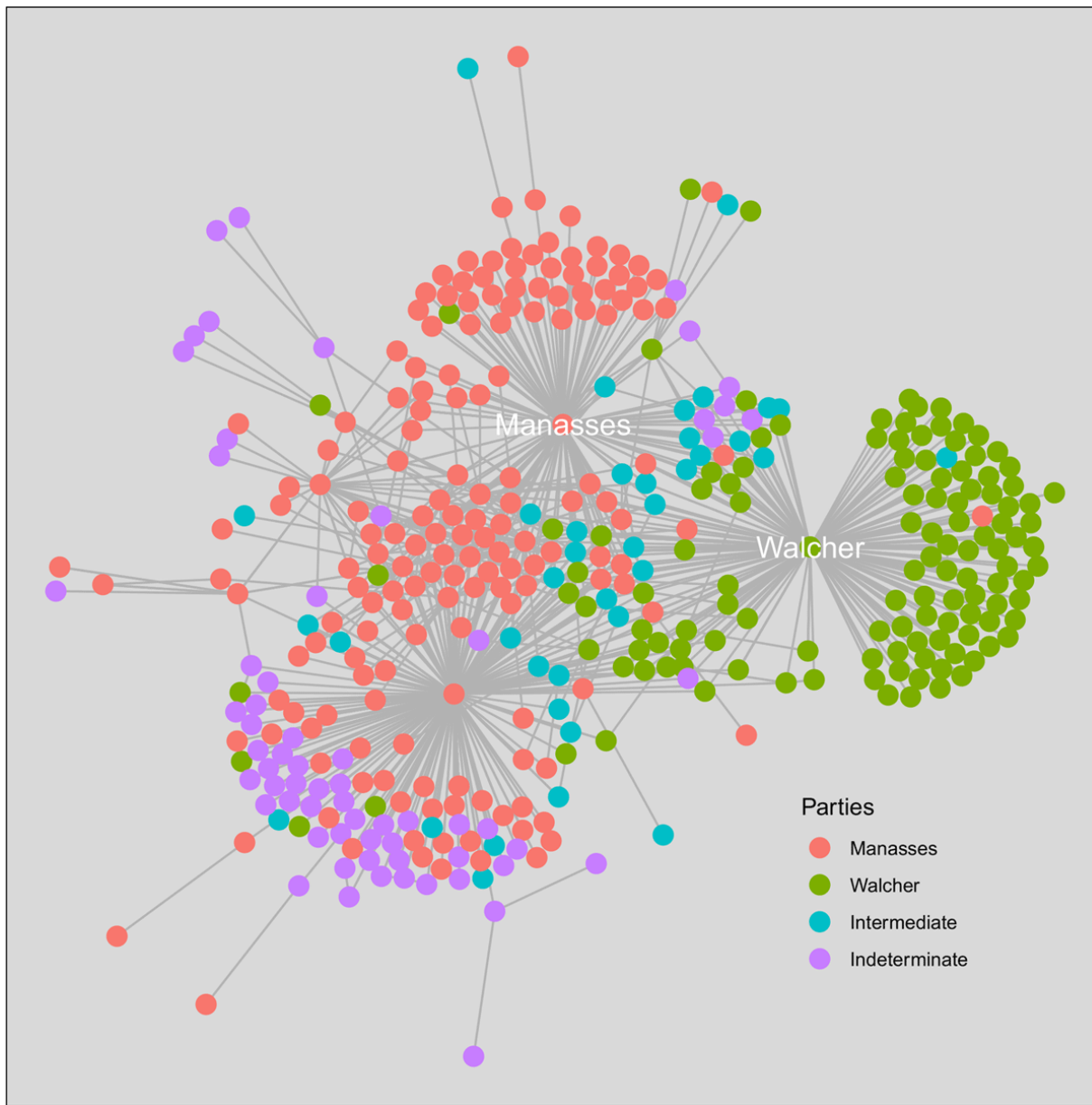
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## Network we obtain from the historian's expertise

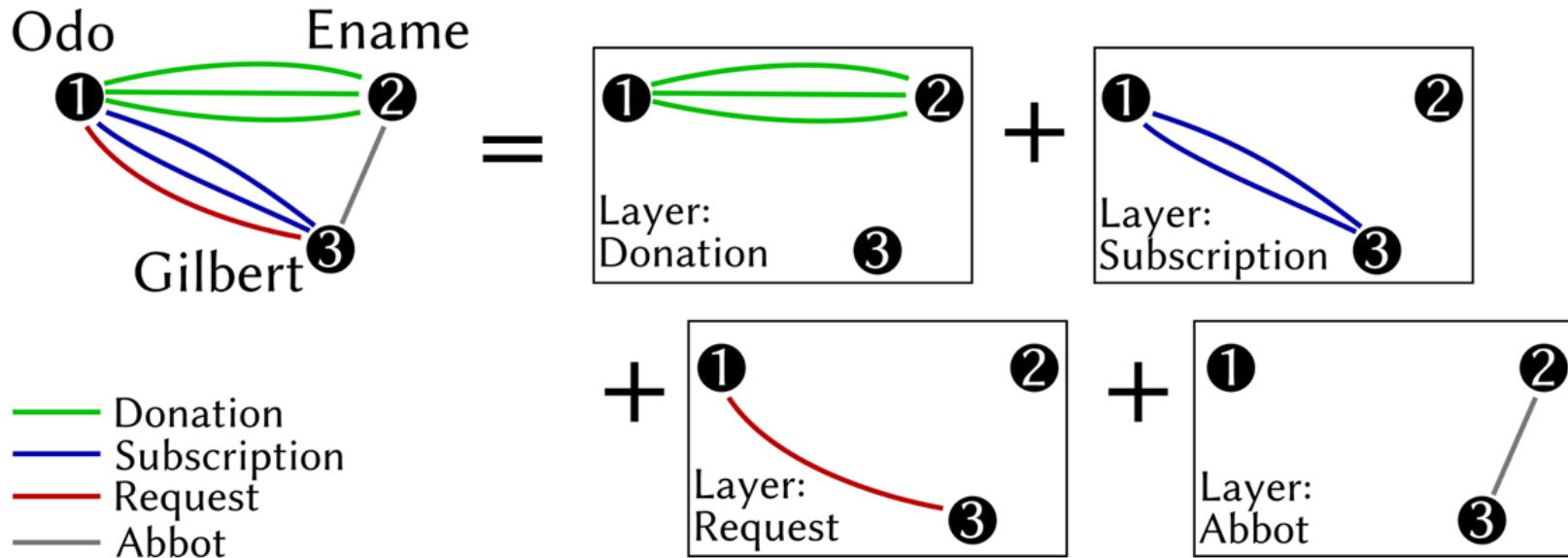


**Source :** De Valeriola, Sébastien, Nicolas Ruffini-Ronzani, and Étienne Cuvelier. 2022. "Dealing with the Heterogeneity of Interpersonal Relationships in the Middle Ages. A Multi-Layer Network Approach." *Digital Medievalist*, 15(1): 1–28. DOI: <https://doi.org/10.16995/dm.8070>.

# Distribution of relations categories within the Cambrai network

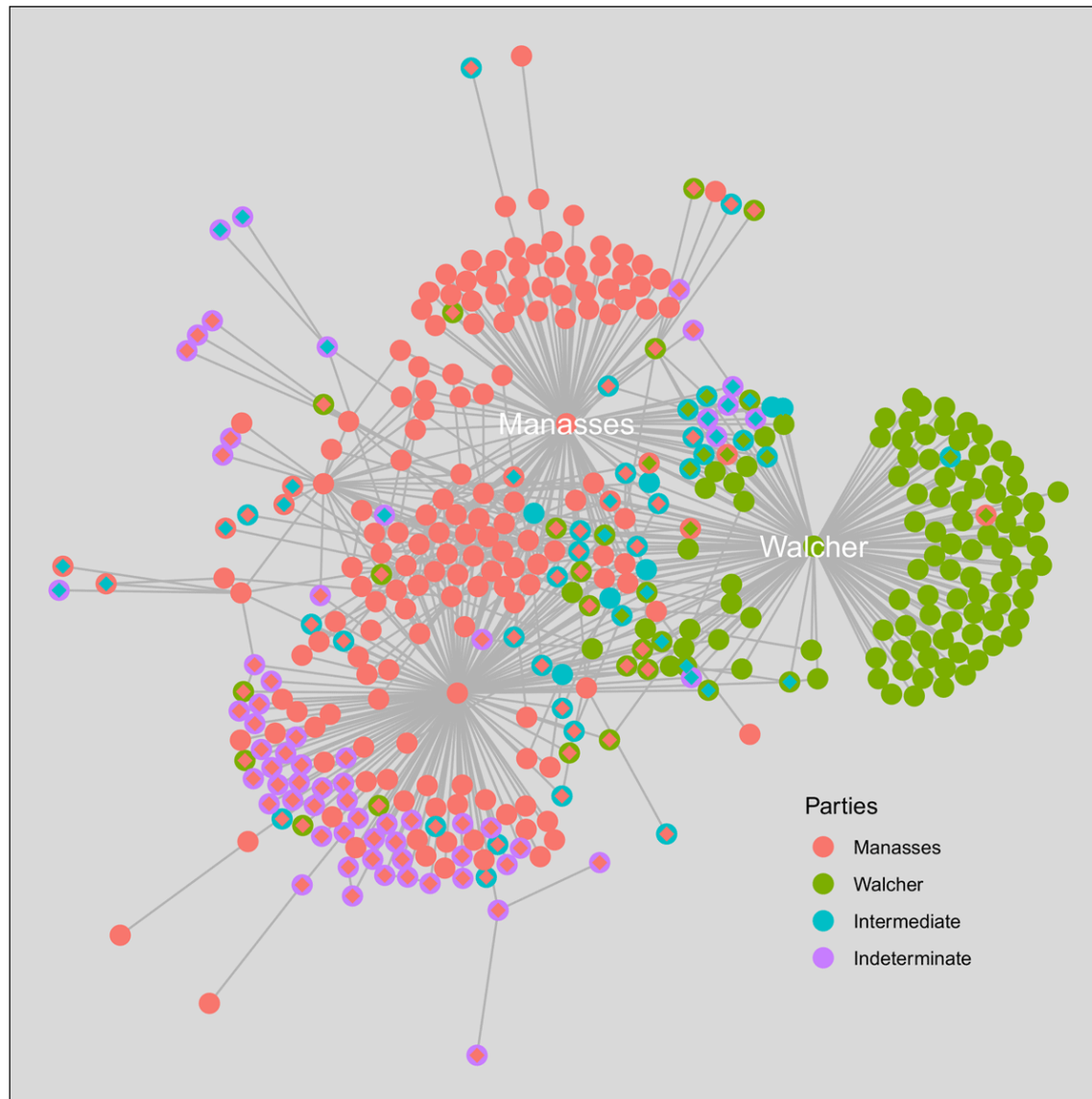
Relation category	Explanation	Number
Abbot	X is abbot of Y	57
Alliance	X enters into an alliance with Y	7
Consent	X consents to an action of Y	31
Cosubscription	X and Y both appear among subscribers of some charter	9457
Donation	X gives a property to Y (or confirms such a donation)	164
Kinship	X and Y are parents	17
Notice	X gives notice about an action of Y	29
Request	X requests from Y to take some action	54
Subscription	X appears among the subscribers on Y's charter	1047

## Decomposition of an example network into layers corresponding to its edges categories

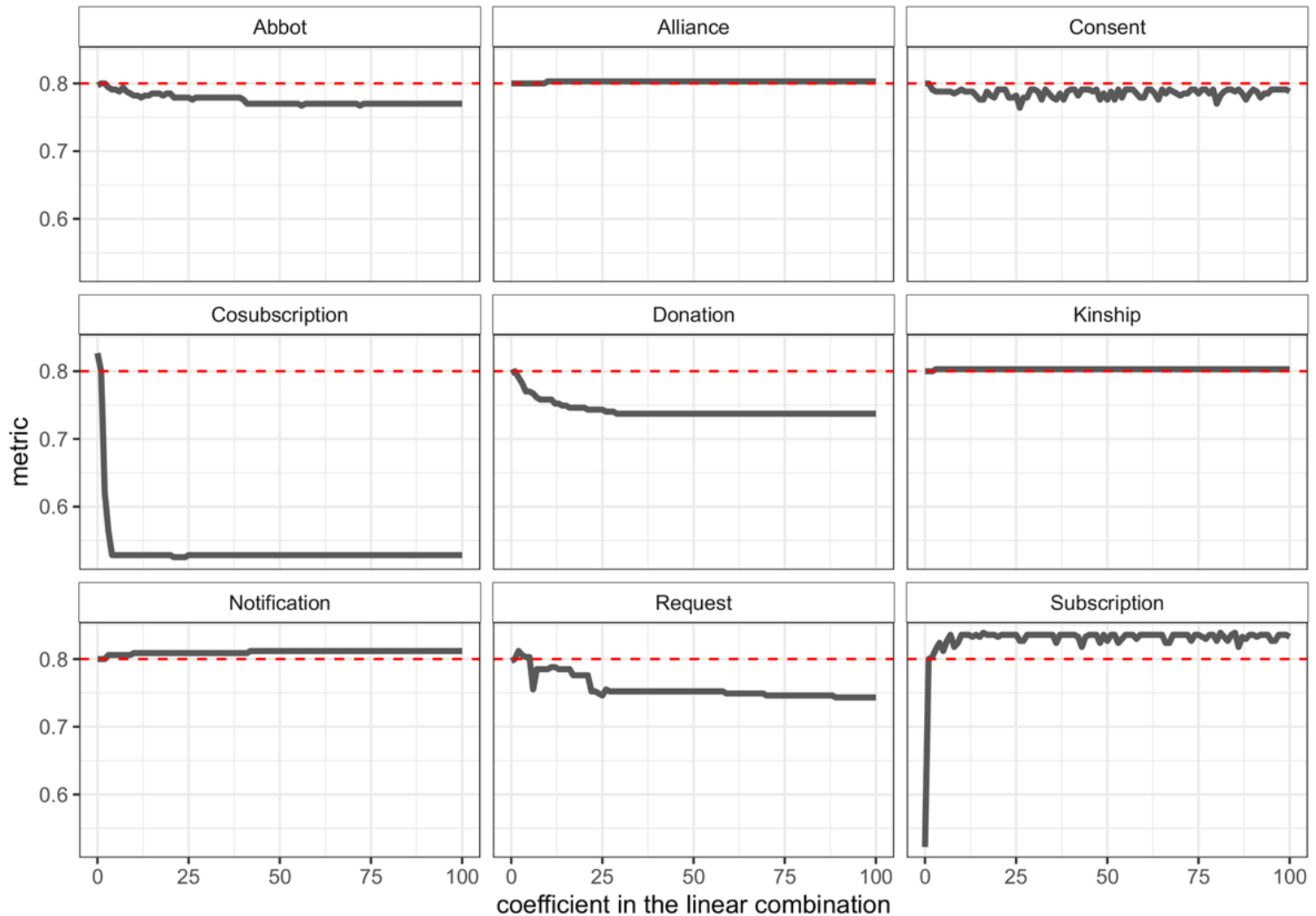


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## Comparison of the parties manually attributed (outer color) and the parties automatically attributed (inner color)



# Evolution of the metric when increasing the importance of each of the nine relationships categories



## Evolution of the metric when increasing the parameter alpha (plus a trend curve)

