(Fe)male Voices on Stage

Finding Patterns in Lottery Rhymes of the Late Medieval

and Early Modern Low Countries with and without AI

MARLY TERWISSCHA VAN SCHELTINGA, SARA BUDTS
AND JEROEN PUTTEVILS

Series Digital History

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Serie digitale geschiedenis

Dit artikel is onderdeel van een serie over digitale geschiedenis in Nederland en België. Elf jaar na het veelgelezen BMGN-nummer over digitale geschiedenis uit 2013 (hier te lezen) maken we een nieuwe tussenstand op. De serie bestaat uit vier serieel gepubliceerde artikelen, die tezamen de veelzijdigheid accentueren van de onderzoekers, de vragen, de methoden en technieken die anno 2024 digitale geschiedenis definiëren. Deze artikelen worden online in een nieuw, op HTML gebaseerd format gepubliceerd, waardoor de methodologische toelichting en visualisaties van het hier gepubliceerde onderzoek beter tot hun recht komen.

This article explores the patterns in lottery rhymes produced in the late medieval and early modern Low Countries, with a focus on the rhymes written by women. The lottery was a popular fundraising event in the Low Countries. Lottery rhymes, personal messages attached to the lottery tickets, provide a valuable source for historians. We collected more than 11,000 digitised short texts from five lotteries held between 1446 and 1606. We have used GysBERT, a language model of historical Dutch, to identify distinctively male and female discourses in the lottery rhymes corpus. Although the model pointed us to some interesting patterns, it also showed that lottery rhymes written by men and women do not radically differ from each other. This is consistent with insights from premodern women's history which stresses that women worked within societal, and in this case literary, conventions, sometimes subverting them, sometimes adapting them, sometimes adopting them unchanged.

Dit artikel onderzoekt de patronen in loterijrijmpjes uit de laatmiddeleeuwse en vroegmoderne Lage Landen, met een focus op de rijmpjes geschreven door vrouwen. Loterijen waren een populaire methode om geld op te halen, en de loterijrijmpjes, persoonlijke boodschappen die werden neergeschreven op de loten, zijn een waardevolle bron voor historici. We verzamelden meer dan 11,000 gedigitaliseerde korte teksten afkomstig van vijf loterijen die plaatsvonden tussen 1446 en 1606. In de analyse maakten we gebruik van GysBERT, een taalmodel voor historisch Nederlands, om kenmerkende discoursen voor mannelijke en vrouwelijke auteurs te identificeren. Hoewel GysBERTs resultaten ons op het spoor brachten van enkele interessante patronen, lieten ze ook zien dat de rijmpjes geschreven door mannen en vrouwen niet radicaal van elkaar verschillen. Dit is in lijn met inzichten uit de historiografie over vroegmoderne vrouwen, waarin wordt benadrukt dat vrouwen functioneerden binnen maatschappelijke, en in dit geval ook literaire, conventies. Soms werden deze conventies door vrouwen ondermijnd, soms aangepast, maar soms ook zonder verandering overgenomen.

In memory of Natalie Zemon Davis,
for her groundbreaking and inspiring work on the history of women
and her attention to fictional narratives as a historical source.

Introduction

Readers of this journal living in the Low Countries will surely be familiar with the popular mass media charity shows organised in the days before Christmas. The public broadcasting companies provide live and continuous coverage of *Het Glazen Huis* (The Glass House) in the Netherlands and *De Warmste Week* (The Warmest Week) in Flanders. One feature of the TV version of these initiatives was the rolling text banners on the screen. You could send a text message to a specific number by which you donate a euro to charity. In return your short text is displayed on the screen text banner. Since there are

multiple participants, it can take a while for your text to appear. These texts are personal messages to specific people, jokes, or references to the charity – it can be anything really. Historians of 2124 may consider these texts as an interesting source for the history of mentalities in the first decades of the twenty-first century.

Now, let us step into our time travelling machine and go to the same region, the Low Countries, and more specifically to Bruges' Grote Markt, in the year 1446. We are in front of a wooden stage with aldermen, clerks and criers drawing a lottery to the benefit of the city treasury. The drawer is taking small tickets out of a basket and the crier is reading the message on these tickets out loud. In 1446 these messages usually consisted of the names of the ticket buyers (1a), but occasionally there was a longer text consisting of a joke or an imploration of God and/or particular saints to win the lottery (1b). The lottery of 1446 provides the first instance of these preserved lottery rhymes and, parallel to the popularity of lotteries, often for charitable purposes, these rhymes would become a popular genre throughout the Low Countries. Here are two examples of tickets from 1446:

(1a) 'Callekin Harewins te Damme'[1]
(1b) 'Aechte Grave Willemme vueghelhuusmakers wijf helpt zint Gillis',[2] ('Aechte Grave, Willemme Birdhouse Maker's wife, help (me), Saint Gillis')

Their popularity is attested in the sheer mass of rhymes preserved in registers currently held in archives throughout the Low Countries. According to our estimates, almost 100,000 lottery rhymes can be found in archival documents of the second half of the fifteenth, the entire sixteenth and the first years of the seventeenth centuries. With an average length of 12.6 words per rhyme, the combined corpus of all these lottery rhymes amounts to more than one million words. This 'Big Data' corpus contains the personal and direct messages of all kinds of individuals, including those of whom we have very little equivalent sources for this period, like women. Their voices, ventriloquised by the lottery clerk and the crier, form a challenging, but unique historical source.[3] In this article we try to find out whether we can

1   Transcription in Louis Gilliodts-Van Severen, 'La loterie à Bruges', *La Flandre. Revue des monuments d'histoire et d'antiquités* 45:1 (1867-1868) 5-26 and 80-92, 13.

2   Ibid., 82.

3   We are borrowing this metaphor (ventriloquise) from Jeremy Goldberg, 'Echoes, Whispers, Ventriloquisms: On Recovering Women's Voices from The Court of York in the Later Middle Ages', in: Bronach Kane and Fiona Williamson (eds.), *Women, Agency and the Law*, 1300-1700 (Routledge 2013) 31-42. DOI: https://doi.org/10.4324/9781315654751-3. The rhymes can be read as short fictional narratives: Natalie Zemon Davis, *Fiction in the Archives: Pardon Tales and Their Tellers in Sixteenth-Century France* (Cambridge University Press 1987); Peter Arnade and Walter Prevenier, *Honor, Vengeance, and Social Trouble: Pardon Letters in the Burgundian Low Countries* (Cornell University Press 2015).

see similarities and differences in contents and forms of the lottery rhymes used by women and men, by male and female ticket buyers. We can look for patterns in 11,206 digitised short texts, 11.7 per cent of the estimated total number of preserved rhymes. In our quest for distinctively (fe)male discourses, we join forces with a Pretrained Language Model of historical Dutch to retrieve such patterns from our lottery rhymes corpus.

A short note on lotteries in the Low Countries

The first lottery in the Low Countries was drawn in Bruges in 1441. From there lotteries quickly spread to towns in both the Southern and Northern Low Countries. The popularity of lotteries continued into the sixteenth century, which saw at least 322 lotteries. This success ended around 1620, when religious criticism caused lotteries to virtually disappear for a while.[4] At the end of the seventeenth century, there was another outburst of local lotteries, which continued even after the national lottery was established in 1726. The early lotteries were mostly organised by city officials, and the profit went into the town coffers. Later on, especially institutions like brotherhoods and churches founded lotteries. From the second half of the sixteenth century onwards, most were held for a good cause, such as the build of a hospital, school or an old men's home, as in the case of the lottery held in Haarlem in 1606.

To participate in an early modern lottery, participants had to buy tickets. The organisers of a lottery employed collectors in all the cities and towns they wanted to sell their tickets in. For a lottery held in Bruges in 1555, for instance, there were collectors in places such as Ghent, Antwerp, Lille, Middelburg and Amsterdam. These collectors then noted down the number of tickets a participant had bought, a short text of their choice and, usually,

4 Jeroen Puttevils, 'The Lure of Lady Luck: Lotteries and Economic Culture in the Fifteenth- and Sixteenth-Century Low Countries', in: Manfred Zollinger (ed.), *Random Riches: Gambling Past & Present* (Routledge 2016) 57-71. DOI: https://doi.org/10.4324/9781315603599; Jeroen Puttevils, 'Invoking Fortuna and Speculating on the Future: Lotteries in the 15th and 16th Century Low Countries', *Quaderni storici* 52:3 (2017) 699-726. DOI: https://doi.org/10.1408/90446; Jeroen Puttevils, 'The show must go on - De performance van de loterij in de Nederlanden (15de–16de eeuw)', *Nieuwe tijdingen: over vroegmoderne geschiedenis* (Leuven University Press 2019) 79-99. https://hdl.handle.net/10067/1634430151162165141; Jan Dumolyn et al., *Te Brugghe ende eldere, omme daer advis te hebbene hoe men daer de lotinghen ghedaen hadde* (Borgerhoff & Lamberigts 2021); Marly Terwisscha van Scheltinga, 'Iets of …? De Brugse loterijprozen van 1446', *Madoc. Tijdschrift over de Middeleeuwen* 36:1 (2022) 2-10; Anneke Huisman and Johan Koppenol, *Daer compt de Lotery met trommels en trompetten! Loterijen in de Nederlanden tot 1726* (Verloren 1991); Sophie Raux, *Lotteries, Art Markets, and Visual Culture in the Low Countries, 15th–17th Centuries* (Brill 2018). DOI: https://doi.org/10.1163/9789004358812.

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Illustration 1. A painting by Gillis Coignet of the lottery held in Amsterdam in 1592 for the *Dolhuis* (the Madhouse). We see the temporary stage (very reminiscent of stages used for rhetoricians' plays, and possibly borrowed from the rhetorician's chamber *De Eglentier*, whose headquarters are vaguely visible in the background) erected on the vegetable market on the Oudezijds Voorburgwal. Note the sizable crowd of both men and women. Gillis Coignet, *De trekking van de loterij van 1592 ten behoeve van het Dolhuis (The draw of the Amsterdam Dolhuis lottery)*, 1593. © Amsterdam Museum, SA 3019, http://hdl.handle.net/11259/collection.38018.

some additional information on the identity of the buyer. At the end of the subscription period, the collector sent their register full of lottery rhymes to the organisers. If someone had bought five tickets, their lottery rhyme was copied onto five pieces of paper, increasing their chances of winning.

During the lottery itself, these tickets were drawn from a basket, one after the other, and read out loud to the audience. A temporary stage was erected for the occasion at a central place in the town, usually a market square (see Illustration 1). To determine if the ticket had won a prize, a note was drawn from the prize basket, which contained snippets that had either a prize or, in most cases, nothing at all written on them. If that note was left blank, the caller would call out 'Niet!' ('Nothing!'). Because all submitted tickets were drawn, the draw could take a very long time, especially as participation rates went from a few hundred to thousands of participants. This was probably a reason for the development of the lottery rhyme, to liven up the otherwise tedious series of identifications.[5] After the draw, the lottery rhymes of winners were printed onto a pamphlet, which was then circulated. A lottery rhyme could therefore have a big audience.

Participation in a lottery was only limited by the price of the ticket. As such, we see people from all walks of life represented in the registers. Authority figures, craftsmen, servants and scholars, old people as well as children bought tickets in the hope of winning a prize. Especially interesting is the presence of women. For the five lotteries we look at in this article, we have more than 4000 lottery rhymes entered by women, almost 40 per cent of all rhymes. Since men often bought more tickets, their rhymes however made up 75 per cent of the tickets drawn.

Lottery rhymes and women's history

The history of women and of women's writing in the medieval and early modern Low Countries is a budding and necessary field of research. Sarah Joan Moran and Amanda C. Pipkin have recently stressed the exceptional position of women in the late medieval and sixteenth-century Low Countries in the masculine sphere of public space.[6] Not only did women outnumber men in

5 Dick de Boer, 'Fun, Greed and Popular Culture: Lotteries and Lottery-rhymes as a Mirror of the Cultural Legacy of the Low Countries' "Long Sixteenth Century"', in: Ethan Kavaler and Anne-Laure Van Bruaene (eds.), *Netherlandish Culture of the Sixteenth Century: Urban Perspectives* (Brepols 2017) 271-293, 278. DOI: https://doi.org/10.1484/M.SEUH-EB.5.114012; Huisman and Koppenol, *Daer compt de Lotery*, 90.

6 Sarah Joan Moran and Amanda C. Pipkin, 'Introduction', in: Sarah Joan Moran and Amanda C. Pipkin (eds.), *Women and Gender in the Early Modern Low Countries, 1500-1750* (Brill 2019) 1-20, 2-3. DOI: https://doi.org/10.1163/9789004391352_002. Also: Lia van Gemert et al. (eds.), *Women's writing from the Low Countries, 1200-1875: A Bilingual Anthology* (Amsterdam University Press 2010).

the urbanised Low Countries – there were 127 women for every 100 men in 1581 in Leiden – they were also more present in public life than women in Southern Europe.[7] Many foreign travellers who wrote about their experiences in the sixteenth-century Low Countries mentioned their presence.[8] Lodovico Guicciardini, in his *Descrittione di tutti I Paesi Bassi* (1567), remarked that 'women bought and sold merchandise and goods, and put their hands and tongues into matters of men, and this with such dexterity, spirit and diligence, that in several matters their spouses put them in charge'.[9]

Several historians have looked into contentious and even radical ideas voiced by women in the Low Countries.[10] The Spanish army captain Alonso Vásquez, who described his travels in the Low Countries in the final quarter of the sixteenth century, was amazed by women's knowledge of articles of faith which they discussed as if they were theologians.[11] An Italian traveller to the province of Holland in 1622 noted that women spoke as freely about matters of state such as war as they discussed house affairs and their clothing.[12] In addition, many women had at least basic literacy: around a third of Amsterdam's brides in the last part of the sixteenth century signed with their name.[13]

7   Andrea Bardyn, 'Women in the medieval society', in: Peter Stabel and Véronique Lambert (eds.), *Golden times: wealth and status in the Middle Ages in the southern Low Countries* (Lannoo 2017) 285; Martha Howell, *Women, Production and Patriarchy in Late Medieval Cities* (University of Chicago Press 1986) 12-44; David Herlihy and Christiane Klapisch-Zuber (eds.), *Tuscans and their Families: A Study of the Florentine Catasto of 1427* (Yale UP 1985) 200-211.

8   Joey De Keyser, *De visie van vreemdelingen op de Zuidelijke Nederlanden in de late middeleeuwen en de Renaissance* (master's thesis in history, Ghent University 2007) 210-219.

9   Lodovico Guicciardini, *Descrittione di tutti i Paesi Bassi* (Hannibal 1994, originally 1581) 172.

10 Marrigje Paijmans et al., 'Pathways to agency: women writers and radical thought in the Low Countries, 1500-1800', *Intellectual History Review* 31:1 (2021) 51-71. DOI: https://doi.org/10.1080/17496977.2020.1858389; Jelle Haemers, 'Commotie in Mechelen. Over sociale conflicten en politiek protest van mannen én vrouwen in de laatmiddeleeuwse stad', *Handelingen van de Koninklijke Kring voor Oudheidkunde, Letteren en Kunst van Mechelen* 120 (2016) 81-96; Jelle Haemers and Chanelle Delameillieure, 'Women and contentious speech in fifteenth-century Brabant', *Continuity and Change* 32:3 (2017) 323-347. DOI: https://doi.org/10.1017/S0268416017000315; Rudolf Dekker, 'Women in Revolt: Popular Protest and Its Social Basis in Holland in the Seventeenth and Eighteenth Centuries', *Theory and Society* 16:3 (1987) 337-362; A. Agnes Sneller, *Met man en macht: analyse en interpretatie van teksten van en over vrouwen in de vroegmoderne tijd* (Kok Agora 1996).

11 De Keyser, *De visie van vreemdelingen*, 212-213.

12 Ibid., 213. Gabbard rightly points out that the travel narratives should not be taken for granted. Perhaps they say more about their author than about the social reality they seek to describe. D. Christopher Gabbard, 'Gender Stereotyping in Early Modern Travel Writing on Holland', *Studies in English Literature, 1500-1900* 43:1 (2003) 83-100. DOI: https://doi.org/10.1353/sel.2003.0004.

13 Erika Kuijpers, 'Lezen en schrijven. Onderzoek naar het alfabetiseringsniveau in zeventiende-eeuws Amsterdam', *Tijdschrift voor Sociale Geschiedenis* 4 (1997) 490-522, 507, 513-514.

Martha Howell recently problematised the concept of women's agency in medieval and early modern Europe as well as its consequences for the evolutions we sketched out in the preceding paragraph.[14] Previous research has divided women into two groups: those with agency, who skirted or even reshaped the patriarchal structures in which they lived, and those who conformed, perhaps reluctantly, to patriarchal norms. But women could move from one group to the other and act (or not) accordingly strategically within or around patriarchal structures, depending on the situation these women found themselves in. Howell argues that researchers should not put women in one or the other group, they should look for the moments when expectations and gender identities were challenged, changed or conformed to, and look for the part women played in these moments. Women as agents interacted with discursive structures about gender roles and norms: women were determined by them, but they could also reinforce or alter the discursive structures – understood by Howell as a combination of ideology, law, economy and social organisation.

In this article we argue that the reproduction of and challenges to patriarchal discursive structures could and did happen in a rather particular situation: the lottery and its draw. We analyse the short texts that women and men in the Low Countries used to participate in the many lotteries that were organised in this region. Some of these lottery rhymes were contentious and even subversive, other rhymes conformed to and confirmed the hegemonic paradigm of patriarchal authority and society. Sometimes women chose to use small variations of a popular verse in their lottery rhymes and, by doing so, demonstrated female agency in the public sphere.[15]

The lottery draw functioned as a platform and provided an opportunity to express one's opinions, it was a 'license to speak' for women as well as men.[16] Men did, however, remain in an advantaged position. Women participated in this public event, but the officials and readers of the rhymes were male, more rhymes were produced by men and, because men bought more tickets, more rhymes written by men were heard by the audience. So while women could freely participate, the lottery registers show that true

14 Martha Howell, 'The Problem of Women's Agency in Late Medieval and Early Modern Europe', in: Sarah Joan Moran and Amanda C. Pipkin (eds.), *Women and Gender* (Brill 2019) 21-31. DOI: https://doi.org/10.1163/9789004391352_003.

15 As such, lotteries are akin to the license associated with carnival and the carnivalesque, where the topic of women on top loomed large: Natalie Zemon Davis, 'Women on Top', in: Natalie Zemon Davis (ed.), *Society and Culture in*

Early Modern France (Stanford University Press 1975) 124-151.

16 Building on Paijmans et al., 'Pathways to agency', 51-71, 62-63; Irene van Renswoude, 'License to Speak. The Rhetoric of Free speech in Late Antiquity and the Early Middle Ages', in: A. Vandenbroucke et al. (eds.), *The Cultural Significance of the Natural Sciences* (*Praemium Erasmianum Yearbook 2012*) (Praemium Erasmianum Foundation 2013) 49-50.

participatory parity was not reached in this public event. In some places, female participation and attendance were even socially stigmatised. For example, the contemporary Antwerp author Michele Bruto advised noble girls not to attend farces in theatres or public entertainments. He specifically targeted listening to and producing 'devises', short theorems, about other people and themselves.[17]

Despite the potential of lottery rhymes, not much research has been devoted to this source. Most work has remained descriptive and introductory, showcasing the more subversive or scabrous rhymes without delving much deeper. The formulaic character of lottery rhymes is emphasised: the common rhymes of 'kinderen-hinderen' ('children-to hinder') and 'vragen-dragen' ('to ask-to carry'), questions playing with the 'niet' ('nothing') that would follow, the recurring theme of charity in a lottery with a charitable cause.[18] How these structures are employed, or if there are differences between participants, is not examined.

Where previous publications have mostly cherry-picked the more interesting rhymes, we decided to scrutinise a large set of rhymes in order to discern trends in the development of the genre of the lottery rhyme through time and space, and to evaluate the contributions of women to this development. The same previous studies argue that the rhymes can give us insight into a socially wide range of people and their literary creations, but have generally refrained from studying the rhymes systematically in relation to gender,[19] as has been done for other genres. For example, analyses of medieval hagiographies have shown that differences between male and female hagiographers are not very pronounced and usually quite complex.[20] Our research question follows this latter strand of research, through the lens of lotteries: which patterns can we discern in the lottery rhymes of women from the middle of the fifteenth to the

17 Lène Dresen-Coenders, 'De strijd om de broek. De verhouding man/vrouw in het begin van de moderne tijd (1450-1630)', *De Revisor* 4 (1977) 29-37, 30.

18 Huisman and Koppenol, *Daer compt de Lotery*; De Boer, *Fun, Greed and Popular Culture*; Hubert Meeus, 'Loterij en literatuur in de Nederlanden (16de en 17de eeuw)', in: Ilse Eggers et al. (eds.), *Geschiedenis van de loterijen in de Zuidelijke Nederlanden* (Algemeen Rijksarchief Brussel 1994) 104-136.

19 The only systematic analysis of lottery rhymes to date is an unpublished doctoral thesis by Kitty Kilian from 1988. She studied a sample of around 2000 lottery rhymes from the Haarlem 1606

lottery. Although she did pay some attention to the gender of the participants, it was not the main focus. Moreover, her method was top-down, categorising lottery rhymes according to a number of categories such as 'Christian', or 'Lottery', decided upon beforehand. Kitty Kilian, *De loterij van Haarlem 1606-1607. Een onderzoek naar de mentaliteit van Hollanders en Zeeuwen in de vroege zeventiende eeuw* (PhD in history, Utrecht University 1988).

20 Katrien Heene, 'Vrouwelijke auteurs in de middeleeuwen: de complexe relatie tussen gender, genre en (literatuur)geschiedenis', *Queeste. Tijdschrift over middeleeuwse letterkunde in de Nederlanden* 13:1 (2006) 109-129, 115-117.

beginning of the seventeenth century, and to what extent were these similar to or different from those of their male counterparts?

We are aware that the male/female opposition was not the only one at play in the early modern Low Countries. Religious alliance, age, marital status, and, especially, class, also were important constituents of people's social identity. However, unless participants mentioned their age, religious stance or being married or not, it is impossible to obtain this information. Earlier attempts to identify participants in tax rolls have only had a success rate of around 10 per cent, and that method is dependent on a tax roll being available.[21] Occupations mentioned in lottery rhymes might offer a way to estimate the social status of participants, but there are relatively few participants who refer to their occupation; specifying one's occupation at all might in itself be a feature of participants belonging to certain groups in society. One way to estimate social status is to look at the number of tickets bought – this is something we have done, as we will discuss later. However, it is hard to combine this with gender patterns, since women were almost absent from those buying high numbers of tickets.

Lottery rhymes definitely have the potential to yield more information on early modern women and men, in all their diversity. This article is a start, and as such it is focused on gender only.

Sources and methods

For this paper, we use lottery rhymes written in Dutch from five lotteries: Bruges 1446, Utrecht 1464, Bruges 1555, Delft 1564 and Haarlem 1606.[22] This selection reflects the chronological and geographical development of lottery rhymes in the Low Countries, from the first known lottery rhymes in Bruges to one of the last lotteries held in the Northern Netherlands before the long pause in the middle of the seventeenth century.[23] The number of lottery rhymes for every lottery differs strongly, based on the total number of participants for that lottery and how many lottery rhymes have survived (see Graph 1).

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21 Wendy Govaers could identify around 100 out of over 200 participants from a lottery held in 1506 in Den Bosch, Wendy Govaers, '"Vele rennen maar slechts één ontvangt de prijs". Bossche loterijen in de 16de eeuw (Deel II)', *Bossche Kringen* 8:2 (2021) 19-26. Jeroen Puttevils only found 70 matches among 1400 participants for the lottery in Leiden 1504: Puttevils, 'The Lure of Lady Luck'.

22 Transcriptions of the rhymes of the 1446 Bruges lottery have been published in Gilliodts-van

Severen, *La loterie à Bruges*. Utrecht 1464 was transcribed by Jeroen Puttevils and Marly Terwisscha van Scheltinga, Bruges 1555 by Jeroen Puttevils and students from the University of Antwerp. Haarlem 1606 was transcribed by Marly Terwisscha van Scheltinga and Nore De Belder.

23 The choice for the lotteries was also influenced by practical concerns: since most of the data was gathered during the COVID 19-pandemic, transcriptions or photographs of the documents needed to be available.

Graph 1. Number of lottery rhymes per lottery, divided by gender and language. The rhymes represented by dotted lines are excluded from the analysis.

Number of rhymes per lottery in our dataset
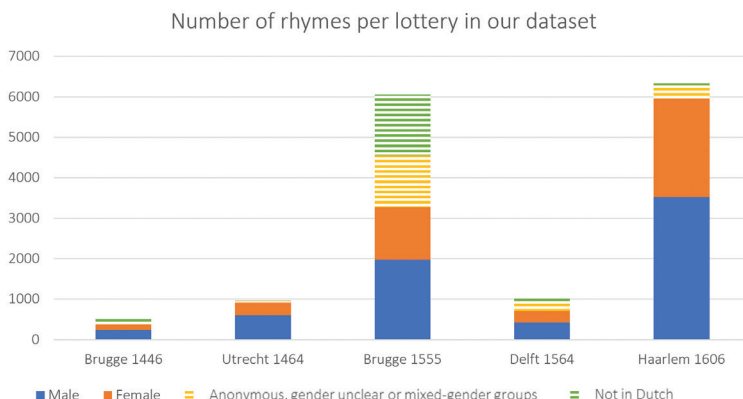
For all lotteries except the Haarlem lottery, we used all rhymes that had survived. The size of the Haarlem corpus, more than 55,000 lottery rhymes, makes it necessary to take a sample. All the lottery rhymes from collectors based in Haarlem itself are used, as well as the lottery rhymes from a fourth of the collector's registers from Amsterdam, which, of all towns and cities supplied the largest number of participants. Together, this came down to more than 6,000 lottery rhymes. The Amsterdam registers are randomly selected. Lottery rhymes from participants in other cities such as Leiden, Delft, Middelburg or Utrecht have not yet been transcribed.

For this article, we restrict our analysis to the lottery rhymes written in Dutch by male and female participants.[24] This means that we are excluding lottery rhymes where the gender of the participant is unclear, such as when participants describe themselves as 'child' or 'person', as well as 'mixed-gender' lottery rhymes, where male and female participants are participating together. We have read all of the rhymes and annotated them according to gender. However, more than 12,000 rhymes makes one lose track of what is typical and what is unique. We therefore turned to a language model in order to extract patterns from these short texts, to verify whether our intuitions based on having gone through long lists of such texts are consistent with computational predictions, and to find out if computer models could see patterns that we did not.

We used a language model for historical Dutch, Gysbert,[25] to automatically search the dataset for discursive patterns that correlate with gender. A model like Gysbert is uniquely suited for this task thanks to its flexibility: it is not hampered by spelling variation and can be trained to learn correlations between given input texts (e.g. lottery rhymes) and some output

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24   For some lottery rhymes this identification is lacking altogether, making it impossible to determine if the participant is male or female. The same is the case for participants who identify by initials or non-gendered identifiers like 'children' or 'neighbours'.

25   https://huggingface.co/emanjavacas/Gysbert.

variable (e.g. the gender of the author). By presenting the model a large set of rhymes along with the gender of their author, we trained GYSBERT to compute how the discursive elements in these rhymes correlate with the gender of their author. After training, GYSBERT provided us with probabilities indicating the likelihood that a rhyme was written by a man or by a woman. To be clear, for all the rhymes used here, we already knew the gender of the author of the rhyme. In text data analysis this approach is called a 'fictitious prediction problem'. We are not interested in the predicted result – whether an anonymous rhyme was written by a man or a woman – but in the (combination of) words, a methodological shorthand for discursive patterns, that is more typical of one gender than of the other.[26] In that respect, we exploit the model's ability for pattern recognition in order to get insight in whether women tended to submit different rhymes from men and, if so, which discursive choices constitute these differences. By manually sifting through the lottery rhymes in function of the scores that GYSBERT had assigned to them (high certainty and correct; low certainty and correct; high certainty but wrong), we managed to reconstruct the linguistic features that are most typical of (fe)male lottery rhymes. We do not want to essentialise gender in our analysis. Rather, we want to know how the discourse of two social groups (men and women) in the early modern period might have differed. To ensure that the attested patterns are genuinely attributable to gender and not to other factors, we repeated this procedure for three non-gender related factors too: the place where the rhyme was collected, the lottery it was part of and the social class of the participant.[27]

Non-gender related pattern variation

Before looking at gender, we examined chronological, geographical and social differences in lottery rhymes. To understand lottery rhymes as a source, it is, however, first important to know some of the conventions, formulas and frequently used patterns that are typical of the genre and that the participants themselves would have been familiar with as well.

Rhyming is one of the most important characteristics of lottery rhymes, although not every single lottery rhyme actually rhymes. The most common form of a lottery rhyme is a couplet: two lines of which the last words rhyme. We observe this in some of the earliest lottery rhymes, and it is still the most common form of lottery rhyme in the early seventeenth century. Many

26 Justin Grimmer, Margaret Roberts and Brandon Stewart, *Text as Data: A New Framework for Machine Learning and the Social Sciences* (Princeton University Press 2022) 196-202. See also: Matthew Gentzkow, Jesse Shapiro and Matt Taddy, 'Measuring Group Differences in High-

Dimensional Choices: Method and Application to Congressional Speech', *Econometrica* 87:4 (2019) 1307-1340. DOI: https://doi.org/10.3982/ECTA16566.

27 For more information on our workflow, on GYSBERT, on the combination of language and AI or the integration of algorithms in historical

Illustration 2. The instruction given to collectors in the Haarlem 1606 lottery. This particular copy was used by collector Pieter van Haverbeecke, who was located in the town of Haarlem itself. © Noord-Hollands Archief, AO, cat. nr. 3, reg.nr. 7.

participants used their own identification as a rhyming element. For example, 'Lisken Nederhouen inde corte ridderstraet' ('Lisken Nederhouen in the Corte Ridderstraet') rhymed 'straet' ('street') with the verb 'baten' ('benefit'), in the Bruges lottery of 1555, expressing that winning a prize would benefit her.[28] There are some 'fixed rhymes', like the above-mentioned 'kinderen-hinderen' ('children-to hinder', used in the context: '[name] with their children, if they had a prize it would not hinder them'). This can lead to the impression of uniformity, and of participants lacking in creativity. However, many participants are creative in their combination of these elements, or their adaptations of the standard pattern. Take for instance this rhyme from 1555: 'Jacquemijne te Maijken ende al haer kinderen/Hadde sij het hoocxste lot/Zij en soudent nijet mijnderen dan deur de kinderen'[29] ('Jacquemijne at Maijken and all her children/If she had the highest lot, she would not reduce it except through the children'). This author uses the quite common rhyme 'kinderen-(ver)minderen' ('children-to reduce'). However, by adding the caveat about not reducing the prize except through the children, Jacquemijne changed this into a lottery rhyme that was unique to her. Rhyming 'children' with 'children' is what we now consider a 'bad rhyme'. It is clear, however, that in this case the participant was purposefully playing with conventions.

Many lottery rhymes play with the fact that they will be read out on stage during the draw. A lottery rhyme such as 'Een weduwe wonende tandwerpen zeere clouck/Wilde wel weten wat den trecker heeft in sijn brouck'[30] ('A widow from Antwerp, very witty/would like to know what the drawer has in his trousers'), both engages with the actors on the stage and anticipates on the 'nothing' to make a joke. Other lottery rhymes engage with a higher authority. In these, God or the saints are appealed to in order to attain a prize. Anneke Huisman and Johan Koppenol speculate that participants were hoping to influence the outcome of the lottery with their rhyme, something which Evelyn Welch has also argued for Italian lottery rhymes from the sixteenth century.[31]

Not all participants tried to put their own spin on their lottery rhyme. Many did follow standard templates without changing much, and certain standard rhymes were being used by a great number of participants. Which rhyme they used could however still be a personal choice. For the Haarlem lottery of 1606, collectors were sent an instruction, demonstrating the volume discounts they should give (see Illustration 2). The printed text contains

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research, we refer the interested reader (novice or expert) to the methodological sections that are inserted in the HTML-version of this article on the BMGN – LCHR website.

28 Rijksarchief Brugge (hereafter RAB), Nieuw Kerkarchief (hereafter NK), cat. nr. 1456, reg.nr. 3655, f. 2v. 'Lisken Nederhouen inde corte ridderstraet/

Had sij thoocxste lot, het sou haer baten' ('Lisken Nederhoven in the Corte Ridderstraet/If she had the highest ticket, it would benefit her').

29 RAB, NK, cat.nr. 1456, reg.nr. 3656, f. 13r.

30 RAB, NK, cat.nr. 1456, reg.nr. 3651, f. 2v.

31 Huisman and Koppenol, *Daer compt de Lotery*, 92; Evelyn Welch, 'Lotteries in Early Modern

eight lottery rhymes that were frequently used by ticket buyers.[32] However, the frequency with which they were used differs, in a way that cannot be accounted for by the order in which the lottery rhymes are listed. Even when copying a premade text without any changes, personal preference seems to have played a role.

Apart from analysing the lottery rhymes by gender, we used GYSBERT to check for possible chronological and geographical differences, as well as differences between participants buying more than the average number of tickets versus those who bought fewer. Chronologically, there is a clear development. The two earliest lotteries in our corpus, Bruges 1446 and Utrecht 1464, show us lottery rhymes in their infancy, while for the later three lotteries, lottery rhymes were an established practice. Still, lottery rhymes kept developing from the 1555 to the 1606 lottery. Certain rhymes or phrases faded out, others were introduced. The 'identification only'-lottery rhyme, which was entered by the majority of participants in the Bruges 1446 and Utrecht 1464, was only used by less than 7 per cent in the 1555 Bruges lottery. In 1606, this was just 0.34 per cent. The use of identifiers as part of a lottery rhyme also decreases, from 75 per cent in the two fifteenth-century lotteries to 38 per cent in 1606. The average length of lottery rhymes more than doubled from the fifteenth- to the sixteenth- and seventeenth-century lottery rhymes.

The formulas and patterns used changed as well. In the 1555 Bruges lottery it is common to appeal to 'Jesus van Nazarenen' ('Jesus of Nazareth'), which happens to rhyme neatly with the verb 'verlenen' ('to grant'). This is used much less frequently in the 1606 Haarlem lottery. Since the lottery rhymes from the Bruges lottery include ones from participants in Haarlem and Amsterdam as well, this is a chronological rather than a geographical difference. On the other hand, the 'I have sold [object] and brought the money into the lottery' pattern (rhyming 'verkocht' with 'gebrocht'), which is common in the 1606 Haarlem lottery, only appears once in the Delft lottery, and never in the 1555 Bruges lottery.

Geographically, there are far fewer differences. The 1555 Bruges and 1564 Delft lottery, the first of which includes lottery rhymes from towns in Flanders, Brabant, Utrecht and Holland, have more in common with each other than with the rhymes pronounced during the Haarlem lottery which all came from Holland.

Lastly, in comparing lottery rhymes from participants who bought more than an average number of tickets with those who purchased less than an average number of tickets, we do see some differences. 'High' buyers did not incorporate identifications in their rhyme as much as 'low' buyers. Instead they preferred general statements such as the lottery rhyme 'Looft godt te

wijlle ghij leeft ende ghesont zijt en siet/De Dooden die niet meer en sijn connen hem loven niet'[33] ('Praise God while you live and are healthy and see:/ The dead who are no more cannot praise Him'). The participant submitting this rhyme, bought 130 tickets. It seems that high buyers were more interested in conveying something to the audience, rather than talking about themselves and their own situation. It would have made more sense to address the audience for someone buying a lot of tickets, as their rhymes would have been read out so many times. Elite members of society might also have taken the opportunity to showcase their knowledge.[34] As said, women were barely represented among buyers of high numbers of tickets.

What's in a (Wo)man's Name?

One way in which men's and women's lottery rhymes differ, is how participants identified themselves. Identifying oneself in a lottery rhyme was a choice, a participant could also include identifying details under the 'per' heading in the register. Moreover, the variety of identifications used shows that there were no clear rules that needed to be followed. Gendered patterns in identification are quickly picked up on by GYSBERT. Lottery rhymes containing occupations are attributed to men with great certainty, while lottery rhymes with marital status, and those which used gendered nouns to describe the participant are categorised as female. In other words, GYSBERT picked up on the fact that men were more likely than women to identify by occupation, while women were more likely to identify by marital status, or by using a noun like 'woman', 'daughter' or 'fool'.

To be clear, we have substituted the actual identifiers used with labels such as [OCCUPATION] or [NAME], so that GYSBERT would not just pick up on the type of name or occupation used, but instead would focus on the occurrence of the identifying element. The trend noticed by GYSBERT is confirmed by the manual analysis: 80 to 90 per cent of the ticket buyers who had an occupation in their rhyme was male, compared to 10 to 20 per cent for the women. For marital status, the balance is more decisive: only one man described himself

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33 Noord-Hollands Archief (NHA), AO, cat.nr. 3, reg. nr. 78, f. 4r.

34 For a survey of the lottery rhymes by elite buyers in the Leiden lottery of 1596, see Dick de Boer and Karel Bostoen, 'Sorte Non Sorte. De deelname van de Leidse elite aan de gasthuisloterij in 1596', in: Jan de Jongste, Juliette Roding and Boukje Thijs (eds.), *Vermaak van de elite in de vroegmoderne tijd* (Verloren 1999) 218-241. For an example of an elite participant, who bought so many tickets that his lottery rhyme would have been read out on average every sixteen minutes, see Dick de Boer, 'Feesten van burgerschap. Rederijkers, loterijen en de transmissie van burgerschapsidealen rond 1600', in: Joop W. Koopmans and Dries Raeymaeckers (eds.), *Feestelijke cultuur in de vroegmoderne Nederlanden*. Nieuwe Tijdingen: over vroegmoderne geschiedenis, 3 (Leuven University Press 2019) 101-119.

by referring to his being married. Women were also more likely to refer to themselves in familial terms (as mother, daughter or sister) than men.

The more frequent occurrence of occupation in lottery rhymes written by men, as well as the use of familial terms and marital status by women, is very much in line with other research on the identification of men and women in the early modern period. In administrative sources, such as court records and burial records, in such diverse places as England and Portugal, researchers see the same pattern.[35] This is usually linked to the legal status of men and women, which for women often depended on being married, and their social roles and prestige, which associated women with their family, and men with their profession.[36]

However, although these patterns are visible in the lottery rhymes, the majority of both men and women did not use occupation, marital or familial terms to describe themselves at all. Only around 20 per cent of the male participants in the 1446 Bruges lottery who identified themselves in their lottery rhyme mentioned their occupation, and this percentage decreases for the later lotteries. On the other hand, the percentage of women identifying themselves by profession goes up, from 0 per cent in the Bruges 1446 lottery to 6 per cent in the Bruges 1555 lottery, and back down again to 3 per cent in the Haarlem lottery. The professions mentioned by women are less diverse and less high-status than those of men: most women identified as servants, spinners and washerwomen, while men showed a wide range of professions, from servants to mirror makers. Still, it shows that quite a few women were known, and wanted to be known, by their profession. This is fully in line with earlier findings that non-elite and middle class women in the Low Countries moved freely in the market and participated in economic life. Schmidt and Van Nederveen Meerkerk provide statistics for growing female labour market participation in the Dutch Republic.[37] References to female marital status

35 Abreu-Ferreira finds that women in early modern Portugal were generally not associated with their work in official documents, Darlene Abreu-Ferreira, 'Work and Identity in Early Modern Portugal: What Did Gender Have to Do with It?', *Journal of Social History* 35:4 (2002) 859-887. DOI: https://doi.org/10.1353/jsh.2002.0039; See also Alexandra Shepard, *Accounting for Oneself: Worth, Status and Social Order in Early Modern England* (Oxford University Press 2015). DOI: https://doi.org/10.1093/acprof:oso/9780199600793.001.0001.

36 For differences between men and women's (perceived) professional identities, see Jane Humphries and Carmen Sarasúa, 'Off the

Record: Reconstructing Women's Labor Force Participation in the European Past', *Feminist Economics* 18:4 (2012) 39-67. DOI: https://doi.org/10.1080/13545701.2012.746465; and Anna Bellavitis, *Women's Work and Rights in Early Modern Urban Europe* (Palgrave MacMillan 2018). DOI: https://doi.org/10.1007/978-3-319-96541-3.

37 Ariadne Schmidt and Elise van Nederveen Meerkerk, 'Reconsidering The "First male-Breadwinner Economy": Women's Labor Force Participation in the Netherlands, 1600-1900', *Feminist Economics* 18:4 (2012) 69-96. DOI: https://doi.org/10.1080/13545701.2012.734630; Ariadne Schmidt, 'Contested authority: Working women in leading positions in the early modern Dutch urban

likewise declined strongly over time, from 17.56 per cent of identifications containing marital status in 1446 to 4.55 per cent in 1606. This is surprising, in light of the tendency in many administrative sources to identify women by their marital status.

Instead of occupation or marital status, a name was the preferred way of identification for both men and women, often accompanied by place of residence. Lottery rhymes thus show us a very different picture than the administrative sources looked at by other researchers. Perhaps this is because lottery rhymes were meant for entertainment, and, more importantly, because the people who put in the rhymes had greater freedom in how, and even if, they wanted to be identified. The similarities between men and women are very much in line with the perceived 'equality' of men and women in the early modern Low Countries in the public sphere. It also shows that the way people identify is highly dependent on the social context in which the identification takes place. Where a courtroom or cemetery might define women only in relationship to men (in the same way that many men were defined by a job, whether this reflected their reality or not), the lottery rhymes show that someone's name and place of residence might have been much more important to men's and women's identities, and their sense of self, in a different context.

As we have seen, the use of an identification decreases through time. But although this trend holds for both men and women, women were consistently more likely to identify themselves in their lottery rhyme than men (see Graph 2).

Graph 2. Percentage of rhymes containing identification per lottery, divided by gender.

Percentage of rhymes containing identification
(name, marital status, occupation, identifying noun)
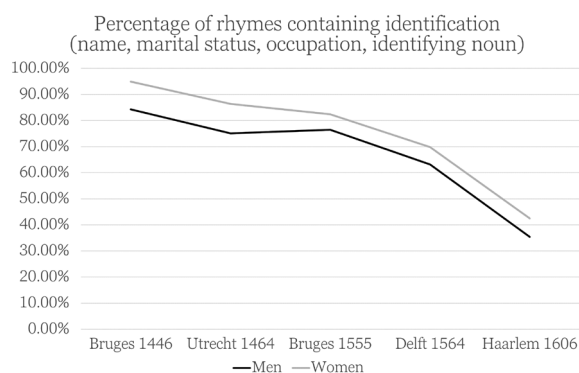
economy', in: Merridee Bailey, Tania Colwell and Julie Hotchin (eds.), *Women and Work in Premodern Europe: Experiences, Relationships and Cultural Representation, c. 1100-1800* (Routledge 2018) 214-326. DOI: https://doi.org/10.4324/9781315475097; Even guilds, often accused of hindering female access to the economy, did not perform this role in the Dutch Republic at that time: Danielle van den Heuvel, 'Partners in marriage and business?

Guilds and the family economy in urban food markets in the Dutch Republic', *Continuity and Change* 23:2 (2008) 217-236. DOI: https://doi.org/10.1017/S0268416008006760; Ariadne Schmidt, 'Women and Guilds: Corporations and Female Labour Market Participation in Early Modern Holland', *Gender & History* 21:1 (2009) 170-189. DOI: https://doi.org/10.1111/j.1468-0424.2009.01540.x.

Although the differences between men and women are difficult to interpret, the fact that so many women identified themselves in their lottery rhyme shows that women did not hesitate to take part in the public sphere, without hiding their identity, or the fact that they were women. This observation ties in with ongoing debates on the position of women in the sixteenth- and seventeenth-century Low Countries. Whereas prescriptive literature by authors such as Erasmus and Vives emphasised the notion of domesticity and the ideology of separate spheres – men outside in the public space and women inside in the private sphere – our analysis of the lottery rhymes demonstrates that these ideas were clearly not yet hegemonic in the period under scrutiny here.[38]

Discursive templates in gender perspective

Aside from these gender differences in self-identification, GYSBERT's results draw our attention to some gendered preferences for lottery rhyme templates. We restrict this part of the analysis to the 1555 Bruges and 1606 Haarlem lotteries, the ones we have most data for, but we keep them separate to ensure that diachronic differences do not interfere with gender-related ones.

One of the patterns GYSBERT picked up on ties into identification: the use of the formula 'jong/oud van jaren' ('young/old of years') to describe oneself, which usually rhymes with the verb 'bewaren' ('to keep'). In the 1555 Bruges lottery, 61 per cent of women who identified themselves as being either young or old, did so using the 'young/old of years' pattern, as opposed to only 35 per cent of young or old men. For the 1606 Haarlem lottery, the percentages are closer together, with 75 per cent of women and 60 per cent of men using the 'of years'-format to refer to themselves as young or old.

The 'jong van jaren' is not the only pattern used more by women than by men. In fact, we wondered if women made more frequent use of rhyme patterns than men altogether. We tested this by looking at the 100 rhymes that GYSBERT was most sure about for either gender in both the Bruges 1555 and Haarlem 1606 lottery. Every pattern that occurred more than once was noted down. Then all lottery rhymes from these two lotteries were annotated if they contained one of these patterns. Interestingly, the 1606 lottery does show a slight difference between men and women in the use of such templates.[39] Although the absolute numbers are higher for men in all cases but one, namely 'jaren' used as a rhyme, women use them proportionately more. The difference for each pattern by

38 Ariadne Schmidt, 'Labour Ideologies and Women in the Northern Netherlands, c.1500-1800', *International Review of Social History* 56:S19 (2011) 48-53. DOI: https://doi.org/10.1017/S0020859011000538; Marijke Spies, 'Women and Seventeenth-Century Dutch Literature', *Dutch*

Crossing 19:1 (1995) 3-23. DOI: https://doi.org/10.1080/03096564.1995.11784038; Els Kloek, *Vrouw des huizes: een cultuurgeschiedenis van de Hollandse huisvrouw* (Uitgeverij Balans 2009).

39 The patterns for which we annotated the lottery rhymes were the rhymes 'jaren/.aren', 'vragen/

itself might be small, but together the difference is significant. In the early lotteries, more men than women deviated from the 'identification only'-entries to produce the early examples of lottery rhymes, and in the decreasing trend of using an identification, men were leading as well. Together with the tendency of women to use the fixed patterns and formulas more frequently than men, this gives the impression that women were a bit more conformant and conservative when it came to their lottery rhymes.

One pattern GYSBERT recognises as more common to male authors, is the rhyme 'verkocht-gebrocht' ('sold-brought'), used almost exclusively in the lottery of 1606.[40] An example is the lottery rhyme 'Jan Verboeckest van sperwou heeft sijn eijeren vercoft/en het gelt inde looterij ghebrocht' ('Jan Verboeckest of Sperwou has sold his eggs/and brought the money into the lottery').[41] This pattern allows for, and even encourages, the participant to add a personal detail, namely the object(s) sold. We see a variety of options, from eggs and apples to 'half a wall' and 'green grass'. Some objects are mentioned in several lottery rhymes, although often with slight variation: apple/apples/ bag of apples, yarn/yarn from the bobbin. Others only appear once, such as cow, canary bird or lettuce. Interestingly, the rhyme with 'gebrocht' by itself was in fact used relatively more by women than by men. The rhyme with 'verkocht', however, was used significantly more by men.

Still, some of the objects or types of objects are cited more or exclusively by women. Fruit and vegetables, fish and textile are more often used by women than by men, and tools, animals and objects related to gaming (marbles and knucklebones) are exclusively or more often noted by men. GYSBERT does not seem to take the objects into account when categorising a rhyme as written by men or women. A woman selling yarn is classified as a male author, and a man selling water (one of two who do so) is classified as female. Of course, we are talking about very small numbers here, since we are looking at the lottery rhymes that not only use the 'verkocht-gebrocht' pattern, but in which the object sold appears in other lottery rhymes as well, and is used more by one gender than by another. After all, GYSBERT looks at the words in the rhyme, and the relation in which they stand to the surrounding words, but with so little data cannot recognise that apples and pears belong to the category of fruit. In cases like these, a human researcher is needed.

A non-rhyming pattern that GYSBERT picks up on, is an appeal to a higher power for a prize. GYSBERT's results indicate this was used more often by women than by men. This is especially apparent in the lottery rhymes classified as written by women from the 1555 lottery, where formulas such as 'Jesus of Nazareth' and 'Jesus Mary Anne' often featured. In 1606, the formulas featuring

dragen', '.ocht/gebrocht', 'betoont/geloond', 'geboren/.oren', 'benouwen/betrouwen', 'ranken/ danken', 'goud/betrouwt' and the use of the word 'ingeleit'. Some rhymes always use the

same words, others vary ('jaren/.aren', '.ocht/ gebrocht').

40 With one exception in the 1564 lottery.

41 NHA, AO, cat.nr. 3, reg.nr. 13, f. 3v.

Jesus and Mary were absent for the lottery rhymes classified as by a female author. In fact, almost none of the lottery rhymes in the 1606 lottery appealed to a higher power for a prize at all. However, the rhymes written by female authors seem to feature God and Jesus more often than the rhymes written by men.

After annotating all lottery rhymes for a reference to a higher power, it seems that this was indeed done more by women than by men in both lotteries. In the 1555 lottery, around 26 per cent of men referred to a higher power, as opposed to around 30 per cent of women. In the 1606 lottery, 29 per cent of men and 34 per cent of women referred to a higher power.

Which higher power do men and women refer to? We can see that in 1555, the majority of references to Jesus, Mary, Anne and Mary Magdalene are made by women. For God, the Holy Trinity and Fortune, the majority of references are made by men. In fact, where references to God make up around 71 per cent of the references to a higher power by men, they make up only 56 per cent of references made by women. The percentages for Fortune are around the same for men and women, but God and the Trinity seem to have been a higher power that especially men refer to (see Graph 3).

There are much fewer references to any higher power other than God and Fortune in the Haarlem lottery, but all the references to Anne and Mary there are made by women. Women also seem to have the same preference for Jesus Christ over God that we saw in the 1555 lottery, as the majority of references to Jesus are made by women. References to Fortune and Fortuna were, somewhat unexpectedly, rather rare: 1.14 per cent, 4.35 per cent and 1.48 per cent of the lottery rhymes of the Bruges lottery of 1555, the Delft lottery of 1564 and the Haarlem lottery of 1606 respectively. Women did not refer to Fortune significantly more often than men.

What is the context of the reference to a higher power? For both the 1555 and the 1606 lottery, women were more likely than men to appeal to

Graph 3. Number of divine references per gender for the lotteries in 1555 (left) and 1606 (right).

Number of divine references
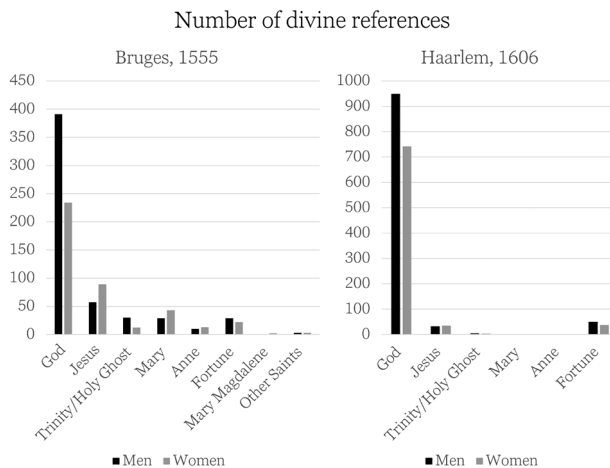
the higher power for a prize. An appeal for a prize would for instance be 'Die huijsvrouwe van Lodewijck van Meghen/Godt die wilt haer den hoocxste prijs geven'[42] ('The wife of Lodewijck van Mecghen/God may give her the highest prize'), whereas another lottery rhyme referring to God might instead say 'Lijden es van godt wtvercoren/Daerom sijn wij al tot lijden gheboeren'[43] ('Suffering is chosen by God/That is why we have all been born to suffer'). Even in absolute numbers there are more women who appeal to a higher power for a prize than men. The percentages for both men and women are much lower in the Haarlem 1606 lottery than for the Bruges 1555 lottery.

In the Haarlem lottery of 1606, which was organised to fund the guesthouse for elderly men, the caritas motive is present in the registered lottery rhymes: 15 per cent of all rhymes (902 cases) referred to the poor and the relief of the poor. There is no difference between male and female ticket buyers. Many rhymes mention the poor who were benefited by the ticket buyer purchasing a ticket in the lottery (see Illustration 3). But ultimately, the main beneficiary, through showing caritas, was the ticket buyer him- or herself. As a reward for their charity they would win a prize, whether that be an actual prize in the lottery or the grace of God in this life or the next. For example: 'Tot behoeve der armen leg ick in/Ter eren goodts en om gewin'[44] ('for the benefit of the poor, I take a stake, for the honour of God and for profit') or 'Maritge Jansdochter wedewe houtcoepster/Die haer deucht anden armen gaet bewijsen/Hadt liever het hemelrijck dan eeen vande hoochste prijssen'[45] ('Maritge Jansdochter widow wood seller, she will prove her virtue to the poor, she would rather have the kingdom of heaven than one of the largest prizes'). Antonis Govertss. argued: 'Veel sonden werden wt ghedaen/Die den armen heeft bij ghestaen'[46] ('Many sins are erased of whom has assisted the poor'). In some rhymes, this instrumental and egoistic interpretation of charity is also subject of criticism: 'Veel leggender in den armen te baten/Verwachten sij geen prijs sij souden inleggen wel laten'[47] ('Many take a stake for the benefit of the poor, if they would not expect a prize, they would not subscribe anymore'). The instrumentalisation of charity in lottery rhymes was not typically male or female. This is perhaps surprising given the traditional role of women at that time as caregivers.[48]

We have already seen that ticket buyers could buy more than one ticket. It strikes us that male ticket buyers in the 1606 Haarlem lottery who had a reference to the poor in their lottery rhyme bought significantly more tickets – more than double! – than the men who did not relate to the

42 RAB, NK, cat.nr. 1456, reg.nr. 3655, f. 14v.

43 SA, AGD, cat.nr. 921, f. 6v.

44 NHA, AO, cat.nr. 3, reg.nr. 86, f. 6r.

45 NHA, AO, cat.nr. 3, reg.nr. 67, f. 3v.

46 NHA, AO, cat.nr. 3, reg.nr. 20, f. 6r.

47 NHA, AO, cat.nr. 3, reg.nr. 55, f. 2r.

48 Alexandra Shepard, 'Care', in: Alexandra Shepard, Catriona Macleod and Maria Ågren (eds.), *The Whole Economy: Work and Gender in Early Modern Europe* (Cambridge University Press 2023) 53-83. DOI: https://doi.org/10.1017/9781009359344.

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Illustration 3. Many lotteries for good causes stressed the charity goal in their 'marketing'. From the 1606 Haarlem lottery onwards, it seems that many participants responded to this by emphasising charity in their lottery rhymes. Here we see a poster for the lottery held in Egmond aan Zee, organised to fund the new Old Men and Women's Home. Illustration by Claes Jansz. Visscher (II), *Loterij ten behoeve van een nieuw gasthuis in Egmond aan Zee, 1615 (Announcement of the Lottery for a New Old Men's and Women's Home in Egmond aan Zee)*. © Rijksmuseum Amsterdam, RP-P-OB-80.803, http://hdl.handle.net/10934/RM0001.COLLECT.456232.

poor. This was not the case for their female counterparts. Social status is an aspect of the lottery rhymes that deserves more consideration in the future.

Conclusions

Our examination of the lottery rhymes from five different lotteries in the Low Countries clearly shows that the impression of uniformity proceeding from the frequent use of patterns and formulas can be deceiving. Even after lottery rhymes outgrew the 'only identification' phase, they kept developing and changing. Old formulas faded out and new patterns were introduced. The chronological variation seems greater than the geographical variation, although we could only really test this last aspect for the 1555 Bruges and the 1606 Haarlem lottery. There are also quite some differences between male and female participants. Women are more likely to identify themselves in their rhymes than men, showing that women did not feel the need to hide when they were speaking in a public forum, a finding that confirms previous research on women in the public sphere of the sixteenth- and seventeenth-century Low Countries. While rhymes were becoming more and more anonymous, these women opted to identify themselves. Perhaps we can read a clear statement in them and a partial rejection of what was becoming a literary convention in the rhymes.

However, the ways men and women identify themselves show more similarities than differences. Most participants identify by name, often accompanied by place. Here, the identifications in the lottery rhymes differ from what we see in many administrative sources, where occupation for men, and marital status for women, are much more frequently employed. We also see that women made use of standard rhyming patterns more often than men did, a notable example being the rhyme with 'young of years'. The frequent use of formulas in combination with the declining trend of identification, which women seem to follow more slowly than men, indicates that women were slightly more conservative when composing their lottery rhymes. It is more difficult to answer why this would be the case. One of the reasons why interpretation was sometimes difficult, is that there is still much we do not understand about lottery rhymes, how they functioned and how people might have used them. This article has been the first systematic, large-scale study of lottery rhymes in thirty-five years,[49] and the first one to focus specifically on gender. The findings we have presented here, should therefore be seen as a starting point.

One thing we can say with certainty, however, is that lottery rhymes composed by male and female authors do not radically differ from each other. Except for a reference to marital status, no pattern or formula seems to be

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49 Kilian, *De loterij van Haarlem 1606-1607.*

exclusively male or female. What we see in the lottery rhymes brings us back to Martha Howell's argument that agency must be understood in relationship to structures. Although the lottery rhymes might have offered women a 'license to speak', this speech was bound by conventions, such as length, the use of identification, fixed rhymes, formulas and appropriate themes. Women worked within these conventions, sometimes subverting them, sometimes adapting them, sometimes adopting them unchanged.

In this analysis, GYSBERT has been a great help. It did not hand us the answers, but instead acted as a sieve, because it took all the lottery rhymes and filtered out the patterns which were most likely to be gender specific. We could then test these patterns by annotating them for all the lottery rhymes, in order to see if the pattern was indeed more common for male or female participants. The GYSBERT model manages to overcome spelling variation, one of the great bottlenecks in digital historical research for the premodern period. A next step that we can take is to use our model to identify lottery rhymes written by women that are now still just ink in lottery registers kept in archives in the Netherlands and Belgium, as well as a more thorough look at differences between participants beside or in combination with gender.

Marly Terwisscha van Scheltinga studied Comparative Literature and Medieval Studies in Utrecht, before taking up a PhD position at the University of Antwerp. She is currently finishing her PhD project 'A Woman's Lot', which investigates public speech by early modern women by looking at lottery rhymes. Her research interests are late medieval and early modern women's history and women's writing. Her article discussing the first surviving lottery rhymes, 'Iets of …? De Brugse loterijprozen van 1446', appeared in *Madoc* in the spring of 2022. E-mail: marly.terwisschavanscheltinga@ uantwerpen.be.

Sara Budts is a postdoctoral researcher in early modern history at the Centre for Urban History at the University of Antwerp. A computational historical linguist by training, Sara's specialisations include the application of artificial intelligence techniques to historical data. As part of the Back to the Future research project, her current research aims to uncover how people in the past envisioned their future by means of a large-scale, partly digital analysis of early modern English merchant letters. E-mail: sara.budts@uantwerpen.be.

Jeroen Puttevils is associate professor in late medieval history at the Centre for Urban History at the University of Antwerp. He is the project leader of 'Back to the Future. Future expectations and actions in late medieval and early modern Europe, c.1400 - c.1830'. His research topics include histories of the future, risk, gambling, lotteries and digital historical methods. He has published several articles on the topic of lotteries and lottery rhymes, among which 'Invoking Fortuna and Speculating on the Future: Lotteries in the 15th and 16th-century Low Countries', *Quaderni storici* 52:3 (2017) 699-725. DOI: https://doi.org/10.1408/90446. E-mail: jeroen.puttevils@uantwerpen.be.