Coverage in Dutch Newspapers of Earthquakes in Italy and Beyond before Lisbon 1755

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Abstract

This chapter discusses tidings about earthquakes retrieved from the digitised Dutch newspapers before the Lisbon Earthquake of 1755. It focuses on how these newspapers reported about previous earthquakes and how detailed their contents were. Other addressed questions: Which parts of the world did they deal with most frequently, did they explain the causes of earthquakes, and what type of media culture do they represent? This chapter demonstrates that readers of early modern Dutch newspapers were already familiar with earthquake reports long before 1755. These papers mainly treated data, although within the existing societal framework. They represented, as far as possible, a media culture of accuracy, although sometimes with a touch of sensationalism. Readers could read dominant opinions only between the lines and draw conclusions for themselves. The widely accepted idea was that earthquakes were punishments from God and that people should repent their sins.

Keywords

earthquakes – newspapers – early modern era – Dutch Republic – Europe – media history

Since 2003, the northeastern part of the Netherlands has been confronted with many earthquakes due to the natural gas extraction in the Groningen gas field. However, earthquakes as a natural phenomenon, not caused by human intervention, have always been rare in this country. Furthermore,

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they mostly took place in the south of the Netherlands, as in Roermond in 1992 (moment magnitude 5.3). Yet from time immemorial, people in the Rhine-Meuse delta have been aware that far more destructive earthquakes happened elsewhere. Before the spread of manuscripts, printed books, and media, they could conclude this predominantly from oral tradition. Bible verses and classical texts with stories about earthquakes will also have played an important role in the process of memory construction.[1]

This situation implies that when the first Dutch newspapers appeared, beginning in 1618, readers will not have been surprised to find reports about earthquakes in the columns. Of course, the supply and selection of such items determined for the greater part which earthquakes became known in the Dutch Republic via printed news media. Since early modern Dutch newspapers included mainly European news, it is obvious that they primarily helped to spread ideas about the circumstances in Europe. In other words, people's impressions never reflected every part of the world equally. Besides, only over time was it possible to develop specific notions about questions such as where earthquakes often occurred – at least when people combined their insights with what they heard from older generations. Furthermore, it is self-evident that the more impressive or unique the available news about certain earthquakes, the better it would be remembered.

Portugal's 1755 earthquake, which completely destroyed its capital Lisbon, is the best known early modern earthquake in Europe. Its effects, in particular a tsunami, were noticed over a much larger area than Portugal. News media published extensively about the Portuguese devastations. Readers were shocked by the reports about the numerous victims and long-lasting consequences. Therefore, it is no wonder that the 1755 Lisbon Earthquake is also one of the best researched early modern disasters in relation to European media.[2]

Until now, the information on earthquakes provided in news media before and after 1755 has been scrutinised much less – at least, not the

1 See e.g. Matthew 28:2, when an earthquake happens while an angel descends from heaven, or Amos 1:1 and Zechariah 14:5 about the earthquake during the reign of Judah's king Uzziah (c. 749 BCE); Richard C. Hoffmann, *An Environmental History of Medieval Europe* (Cambridge: Cambridge University Press, 2014), 304–13.

2 Concerning the Dutch media about this earthquake, see chapter 'The 1755 Lisbon Earthquake and Tsunami in Dutch News Sources. The Functioning of Early Modern News Dissemination', in my *Early Modern Media and the News in Europe. Perspectives from the Dutch Angle* (Leiden: Brill, 2018), 243–64.

Dutch context.[3] This chapter will be restricted to the situation before the Lisbon Earthquake of 1755, focusing on how early modern Dutch newspapers reported about previous earthquakes. How often did they include such reports, and how detailed were their contents? Which parts of the world did they address the most, and did they explain the causes of earthquakes in their accounts? In short: what perceptions and discourses can we gather from the early Dutch newspapers concerning earthquakes before November 1755, and what type of media culture do they represent?

This chapter will discuss tidings about earthquakes retrieved from the Delpher collection of digitised Dutch newspapers.[4] Many variants of the Dutch words (*aard*)*beving*(*en*) ('[earth]quake[s]') have been tested, which resulted in a set of circa 820 items.[5] About 50 of them appeared to be of less relevance, since they mainly concern reports in which extreme weather circumstances are compared with the effects of earthquakes, and advertisements for publications about earthquakes. Although these items are relevant for questions such as how often and in what ways Dutch people were confronted with the phenomenon of earthquakes, they are less suitable for topics related to numerical issues, for example, the question of which earthquakes Dutch *courantiers* (the newspaper publishers) covered the most.

3 The situation varies per country and per case. See e.g. Romano Camassi and Viviana Castelli, 'Looking for "New" Earthquake Data in the 17th–18th Century European "Newssellers" Network', *Journal of Earthquake Engineering* 8: 3 (2004), 335–59. See also Emanuela Guidoboni and John E. Ebel, *Earthquakes and Tsunamis in the Past. A Guide to Techniques in Historical Seismology* (Cambridge: Cambridge University Press, 2009), 41–146, concerning newspapers and other types of written historical sources about earthquakes. Another angle: Kerrewin van Blanken, 'Earthquake Observations in the Age before Lisbon. Eyewitness Observations and Earthquake Philosophy in the Royal Society', *Notes and Records. The Royal Society Journal of the History of Science* 76: 3 (2022), 27–48, https://doi.org/10.1098/rsnr.2020.0005. The most recent general research: Rienk Vermij, *Thinking on Earthquakes in Early Modern Europe. Firm Beliefs on Shaky Ground* (London and New York: Routledge, 2020).

4 On 30 March 2021, Delpher included 32,620 newspaper copies in the Dutch language, published in the period 1618 until 31 October 1755; https://www.delpher.nl/nl/kranten (accessed 30 March 2021).

5 Consistency of Dutch spelling did not exist during the seventeenth and eighteenth centuries. It was therefore necessary to try several variants. On 1 March 2021, the following variants led to results: *aardbeeving*, *aardbeevinge*, *aardbeevingen*, *aardbeving*, *aardbevinge*, *aardbevingen*, *aerdbeeving*, *aerdbeevinge*, *aerdbeevingen*, *aerdbeving*, *aerdbevinge*, *aerdbevingen*, *aertbeeving*, *aertbeving*, *aertbevinge*, and *aertbevingen*. Variants of the word *beving* led to a few other dozens of results, but they also brought many irrelevant items because of different meanings. Other search terms were not used to keep the research feasible. Furthermore, it is questionable whether they would have produced different conclusions. Variants, e.g. of the Dutch word *aardschudding*, led to only a few extra results in Delpher (accessed 31 March 2020): two in *Oprechte Haerlemse courant* (22 September 1740) and (19 March 1743), both Italy, and one in *Opregte Groninger courant* (7 August 1750), which had already been retrieved via the keyword *aardbeevingen*.

Furthermore, one must keep in mind that not all of the early modern Dutch newspaper copies have been preserved and not all the stored copies have been digitised.[6] It is nevertheless possible to provide general impressions, because the number of circa 770 remaining reports is not a small sample. We may assume that observations based on these data are both representative and exemplary for the news that all Dutch newspapers published about earthquakes before November 1755.

The most significant newspapers in this research are, in decreasing order of importance: *Oprechte Haerlems(ch)e courant* (est. 1656), *Amsterdamse courant* (est. 1670), (*Opregte*) *Leydse courant* (est. 1686), *Opregte Groninger courant* (est. 1743), *'s Gravenhaegse* (or *The Hague*) *courant* (est. 1708), *Leeuwarder courant* (est. 1752), and the Delft *Hollandsche historische courant* (est. 1721). Several other long-running newspapers were published in the Dutch Republic before 1755, notably *Utrechtse courant* (est. 1675) and *Rotterdamse courant* (1717–29; restarted 1738). Unfortunately, the Delpher collection included few copies of these titles during the time of research.[7]

Earthquake Areas in News Reports

Before November 1755 Dutch readers would not immediately expect tidings about earthquakes in Portugal, but rather from regions surrounding the Mediterranean Sea.[8] This assumption is based on the fact that around 50 per cent of the selected reports concerned earthquakes on the Italian peninsula.[9] Another 10 per cent dealt with quakes in the Ottoman Empire, the huge territory that stretched from the Balkans and Greece in Europe

6 See Arthur der Weduwen, *Dutch and Flemish Newspapers of the Seventeenth Century, 1618–1700*, 2 vols (Leiden: Brill, 2017) for insights into preserved Dutch newspapers before 1700.

7 The *Amsterdamse courant* was a merger of several titles. The two important predecessors are *Courante uyt Italien, Duytslandt, &c* (est. 1618) and *Tydinghe uyt verscheyde quartieren* (est. 1619). More information about the newspapers mentioned also in Esther Baakman and Michiel van Groesen, 'Kranten in de Gouden Eeuw', in Huub Wijfjes and Frank Harbers (eds), *De krant. Een cultuurgeschiedenis* (Amsterdam: Boom, 2019), 20–45; Joop W. Koopmans, 'Expansion and Restraint in the Dutch Newspaper Market, 1700–1795', in Arthur der Weduwen and Malcolm Walsby (eds), *The Book World of Early Modern Europe. Essays in Honour of Andrew Pettegree*, 2 vols (Leiden: Brill, 2022), vol. 2, 481–510.

8 Reports about three rather recent earthquakes in Portugal before 1755 had been published in *Leydse courant* (25 April 1734), *Oprechte Haerlemse courant* (22 August 1750), and *Opregte Groninger courant* (7 March 1752).

9 In this observation, the Italian peninsula is a synonym for the present state of Italy; also five reports about earthquakes on Malta have been included here.

to Syria, Palestine, and Egypt in the Middle East, and Algiers on the North African Coast. Approximately 30 of the remaining 40 per cent included a range of many European states, leaving another 10 per cent related to the rest of world. The last category – a result of the age of European travels – demonstrated that earthquakes were a global phenomenon.

When we stay in Europe, apart from Italy and the Eastern Mediterranean, Dutch reports covered – in decreasing order – earthquakes in the German states and Hungary (including Transylvania), on the British Isles, in France, Portugal, Switzerland, Spain, the Southern Netherlands, the Dutch Republic, Poland, Sweden and the rest of Scandinavia, and the Baltic region. These findings fairly correspond with the information provided by AHEAD, the digital European Archive of Historical Earthquake Data.[10] The long list of earthquakes between 1618 and 1755 in this archive, however, also makes it clear that the digitised Dutch newspapers do not mention every earthquake. On the other hand, it is peculiar that not all of the earthquakes mentioned in the Dutch reports can be found in the list of AHEAD.[11]

Moving from the state level to the local situation in Europe leads to more specified outcomes. The reports about Italian earthquakes show a great variety of cities and other locations. Together, they give the impression that earthquakes could happen anywhere in Italy. Nevertheless, most reports concern quakes that took place in the regions of first Naples and Sicily, followed by Rome, Tuscany, and Calabria. Here mainly the regions are mentioned, since a great number of accounts include several geographical names of towns and villages. This is logical because most earthquakes struck large areas, corresponding to geological and not political borders.

Concerning the rest of Europe, many regions and places were covered. Most German and Swiss cities that are mentioned in this respect fit in the earthquake zone of the Rhine Rift Valley, the northern part of the Alps and the surroundings of Leipzig. One example is the August 1728 earthquake that caused damage and victims in the Palatinate and the regions of Strasbourg (now France), Frankfurt am Main, Freiburg, and Basel (Switzerland).[12]

10 See European Archive of Historical Earthquake Data, https://www.emidius.eu/AHEAD/index_en.htm (accessed 3 April 2023).

11 Perhaps some early modern reports include errors such as incorrect place names, which could explain why they cannot be found in AHEAD, but this may also mean that not all the early modern news media have been seriously used for finding data about earthquakes so far.

12 *Amsterdamse courant* (10 August 1728) and (12 August 1728);*'s Gravenhaegse courant* (13 August 1728); *Leydse courant* (16 August 1728). For Leipzig, see *Oprechte Haerlemsche courant* (5 November 1711). Among other Swiss cities, Geneva was also mentioned, see *Oprechte Haerlemsche courant* (9 July 1716) and (22 March 1753).

Over the years, Dutch readers could also conclude from occasional news reports that earthquakes happened on the British Isles, particularly in England.[13] The same goes for France, Portugal, Spain, and the other European countries listed. Since news reports about earthquakes in those states were published irregularly, it must have been difficult for interested readers to discern specific geographical territories.

In the Turkish part of the Ottoman Empire, the cities of Smyrna (today Izmir) and Constantinople (present-day Istanbul) generated much earthquake news. The first extensive and also emotional accounts describe the July 1688 earthquake that destroyed a major part of Smyrna. 'It had pleased God' to turn the city upside down, but the Dutch merchants had been saved, according to one of the reports.[14] Another devastating earthquake covered in the Dutch papers occurred in both Constantinople and Cairo in 1754.[15] It would be excessive to mention all the years with Turkish earthquakes; nevertheless, it is clear that almost all generations of Dutch readers were confronted with trembling stories from this part of the world. Roughly speaking, this also applies to Ottoman Greece. The news about this country usually reached the Dutch Republic via Venice, which ruled several Greek islands.[16]

Reports concerning earthquakes in Latin America concentrated on the Caribbean Isles, Peru, and Chile. The 1650 report from London, mentioning an earthquake on Barbados, seems to be one of the earliest pieces of information about non-European earthquakes in the Dutch printed papers.[17] A subsequent message was delivered by a Dutch ship in 1669, stating that the islands of Martinique and Guadeloupe had been struck by several earthquakes in the previous year.[18] Jamaica is the most frequently specified

13 News about earthquakes on the British Isles before 1755 can be found in the Dutch newspapers of at least 1681, 1683, 1690, 1692, 1725–28, 1734, 1736, 1739, 1744, 1747, 1749, 1750, and 1753–55. Most of them were relatively light.

14 'Het heeft God belieft, op den 10 deses omtrent de middag door een sware Aertbeving de Stadt van Smirna het onderste boven te keeren'. *Oprechte Haerlemsche courant* (16 September 1688). See also *Amsterdamse courant* (16 September 1688).

15 See e.g. *Leydse courant* (18 October 1754), (21 October 1754), and (11 December 1754); *Opregte Groninger courant* (25 October 1754), (5 November 1754), (15 November 1754), (22 November 1754), and (10 December 1754); *Leeuwarder courant* (26 October, 2 November, and 14 December 1754); *Oprechte Haerlemsche courant* (2 November 1754).

16 See e.g. *Oprechte Haerlemsche courant* (17 November 1665), (24 July 1683), and (15 March 1692); *Amsterdamse courant* (30 January 1677) and (11 January 1681); *Leydse courant* (16 April 1723); *'s Gravenhaegse courant* (9 September 1729); *Opregte Groninger courant* (27 June 1752) (via Ancona).

17 *Courante uyt Italien, Duytslandt, &c* (2 July 1650). About other earthquakes on Barbados, see *Amsterdamse courant* (21 September 1702) and (13 November 1749).

18 *Oprechte Haerlemsche courant* (3 January 1669).

Caribbean island in the Dutch reports, with earthquakes in at least seven years. However, apart from 1692, the reports concerned only minor cases.[19] Cuba (1693 and 1724), Montserrat (1690 and 1735), and Saint-Domingue (or Hispaniola; 1723 and 1752) are other hotspots mentioned more than once. In 1752, for instance, the Haarlem newspaper reported that an earthquake had destroyed 397 of the 400 houses in Port-au-Prince, the capital of the present state of Haiti.[20]

The first Peruvian earthquake to be addressed, which damaged Lima severely in October 1687, was described in the Dutch newspapers of June 1688.[21] The October 1746 earthquake, completely destroying Lima and its port town, generated several items in the papers of June 1747.[22] The earlier January 1728 earthquake in Suriname must have drawn special attention in the Dutch Republic because of the colonial presence of Dutch plantation owners. The reports were surely a great relief to related news readers, since the quakes had caused only fear and no damage.[23] Information about earthquakes in North America was rare. This news arrived in the Netherlands generally via reports from London. It contained, for example, sentences about quakes that had been felt in Boston in 1727 and Nova Scotia in 1753.[24]

The islands along the northwest African coast also pop up a few times in the digitised papers. In 1705 the Haarlem newspaper mentioned a powerful earthquake on the Canary Islands. In 1718 it cited a quake that had been felt on several Cape Verdean and Canary Isles.[25] In 1731 quakes on Graciosa Island, north of Lanzarote, and in the city of La Laguna on Tenerife were reported. Both had taken place at the end of the preceding year.[26] A report

19 See e.g. *Oprechte Haerlemsche courant* (13 July 1688), (18 July 1690), (2 November 1703), (29 August 1750), and (2 March 1752); *Amsterdamse courant* (5 February 1695) and (5 April 1703); *Leydse courant* (9 September 1720); *'s Gravenhaegse courant* (26 October 1729) and (7 September 1750). Concerning the 1692 earthquake on Jamaica, see further on.

20 See e.g. *Oprechte Haerlemsche courant* (18 July 1690), (24 February 1693), and (30 May 1752, this earthquake occurred on 21 November 1751); *Leydse courant* (31 December 1723), (6 March 1724), (8 March 1724), and (28 February 1752); *Amsterdamse courant* (13 November 1749); *'s Gravenhaegse courant* (17 October 1735).

21 *Amsterdamse courant* (8 June 1688); *Oprechte Haerlemsche courant* (12 June 1688).

22 *'s Gravenhaegse courant* (19 June 1747) and (26 June 1747); *Amsterdamse courant* (20 June 1747); *Oprechte Haerlemsche courant* (20 June 1747) and (27 June 1747); *Leydse courant* (23 June 1747). Other earthquakes, also or only in Chile, were reported in 1731, 1740, and 1752.

23 *Amsterdamse courant* (22 May 1728); *Leydse courant* (24 May 1728).

24 *'s Gravenhaegse courant* (16 January 1728) and (12 May 1728); *Oprechte Haerlemsche courant* (13 May 1728) and (23 June 1753). See also *Amsterdamse courant* (9 March 1728) with an announcement of a day of prayer because of the earthquakes.

25 *Oprechte Haerlemsche courant* (30 April 1704) and (6 August 1718).

26 *'s Gravenhaegse courant* (7 March 1731).

about a major quake on Madeira in November 1731 reached the Dutch press in June 1732 by a circuitous route: through a letter from Philadelphia that had been sent to Dublin.[27] News about sub-Saharan Africa was scarce in the early Dutch newspapers, so it is not surprising that we lack any information about earthquakes from this continent.

The eight covered earthquakes in Asia, outside this continent's part of the Ottoman Empire, struck Iran (Mashhad, 1687; Kashan, 1755), Japan (1703), China (Macao, 1728; Beijing, 1730), India (Chandannagar near Kolkata, 1737), and the Dutch East Indies, now Indonesia (Java, 1699; Amboyna, 1755). Except for the Mashhad Earthquake, which was covered with just one sentence in the Haarlem newspaper of 1687, they did not appear in the digitised Dutch news columns before the eighteenth century.[28] The Japan earthquake must have been the Genroku Earthquake of 31 December 1703, which struck Edo (present-day Tokyo) heavily. This disaster led to fires and a tsunami, which were also both mentioned in the Dutch report that was retrieved from the returning ships of the Dutch East India Company, but not before 1705.[29]

Most of the reports – both European and non-European cases – were devoted to urban regions, while earthquakes also struck the countryside, wilderness, and the seas. However, few correspondents made an effort to write about uninhabited or less-populated territories. One of them wrote about the 1693 earthquake that destroyed one third of Sicily. It was said to have struck the island in such a way that previous generations would not have recognised it anymore.[30] Another example is a report about the 1726 earthquake in Hungary that split a mountain, half of which would have fallen into Danube River.[31]

Frequency of Earthquake Reports and the Shocks of 1692

The first digitised remark about an earthquake, which presumably happened in Austria in April 1623, was included in the Amsterdam newspaper *Tydinghe*

27 *'s Gravenhaegse courant* (19 June 1732). This must be the same earthquake that destroyed Santa Cruz de Aguer, the predecessor of present-day Agadir in Morocco. Madeira had also been struck by an earthquake in 1725, according to *Oprechte Haerlemsche courant* (9 June 1725).

28 *Oprechte Haerlemse courant* (1 March 1687), (30 July 1705), (16 August 1731), (18 August 1731), (25 October 1731), (5 June 1738), (10 June 1755), and (14 June 1755); *Nouvelles extraordinaires de divers endroits* (1 October 1699); *Leydse courant* (2 November 1729) and (9 June 1755); *'s Gravenhaegse courant* (15 August 1731); *Leeuwarder courant* (14 June 1755); *Opregte Groninger courant* (28 October 1755).

29 *Oprechte Haerlemse courant* (30 July 1705).

30 *Oprechte Haerlemse courant* (7 March 1693).

31 *Amsterdamse courant* (3 December 1726).

uyt verscheyde quartieren from 8 May 1623. Time would tell how significant it would be, according to the author.[32] Subsequent messages about earthquakes in the same newspaper concerned cases in 1629 (Tuscany), 1642 (Alsace), and 1646 (Leghorn). The 1629 earthquake had swallowed a complete village with all its inhabitants, which must have been horrifying news to read. The 1642 report is interesting because it is an early example in the Dutch digitised newspapers in which the author attributes the earthquake to 'natural causes' instead of supernatural powers, which were connected with blood-spitting fountains in the same report.[33]

In the subsequent years and before the 1680s, the digitised newspapers include just two dozen other reports about earthquakes. This is not surprising, since few Dutch newspapers were published in that period. Furthermore, the news supply from abroad was still in an early stage.[34] From the 1680s onwards, however, the selected newspapers include an increasing number of items about earthquakes, including them almost every year, with a varying number of cases per year. Nearly identical texts could be found in multiple papers, since they collected news via similar channels and copied items from each other. This means that the knowledge about – and probably the fear of – the effects of earthquakes was spread among a larger group of Dutch citizens during the eighteenth century.

The September 1692 earthquake in Western Europe is one of the first extensively covered earthquakes in Dutch newspapers. The *Oprechte Haerlemse courant* opened the reporting in its edition of 20 September 1692, with a message from The Hague dated two days earlier. The editor writes about a possible earthquake that had been felt in The Hague on 18 September, and in all places within a distance of 'three to four hours' – a typical contemporary way of measuring. However, he suggests that it could also be the effect of a firework depot explosion. That idea was immediately refuted in the same paper's next report, dated 19 September, which describes the earthquake as it had been experienced in Antwerp.

The Haarlem newspaper's next edition from 23 September put an end to all doubts as well, with an account from the Dutch province of Zeeland's capital of Middelburg, describing how the earthquake had been felt there. The report's first sentence is conspicuous, since it states that people had feared the same

32 The city archive of Linz (Austria) could not confirm this earthquake from any source.

33 *Tydinghe uyt verscheyde quartieren* (9 June 1629), (17 January 1643), and (12 March 1646). Cf. Vermij, *Thinking on Earthquakes*, 161.

34 Cf. Carlos H. Caracciola, 'Natural Disasters and the European Printed News Network', in Joad Raymond and Noah Moxham (eds), *News Networks in Early Modern Europe* (Leiden: Brill, 2016), 756–78.

Figure 11.1 Jan Luyken, *Earthquake that Destroyed Port Royal (Jamaica) in 1692*, etching, 10.9 × 15.6 cm, published in the second volume of Johann Ludwig Gottfried's *Historische kronyck*, 1698, cols 1615–16. Rijksmuseum, Amsterdam, RP-P-1896-A-19368-1584

fate as 'those from Jamaica'. This was an implicit reference to recent messages in the Dutch newspapers of 28 August 1692 about a severe earthquake on Jamaica in June 1692. That quake was said to have destroyed two thirds of the island's capital Port Royal within two minutes and had probably caused 2,000 fatalities, which in hindsight seems to be an accurate figure.[35]

The Amsterdam editions of 23 and 25 September 1692 were also full of reports about the nearby earthquake. They clarified that the region affected included Cologne and other towns across the German border, as well as Liège, Brussels, and Bruges in the Southern Netherlands; London, Portsmouth, and other cities in south-east England; and Lille and Paris in France, although this country's capital had felt it only very briefly. The 1692 earthquake caused much material damage, in particular fallen chimneys, according to the reports.[36] Scientist Christiaan Huygens felt the earthquake in his mansion Hofwijck near The Hague. He, too, at first thought that

35 See *Amsterdamse courant* (28 August 1692) with reports from both London and The Hague. *Oprechte Haerlemse courant* of the same date reported that three-fourths of Port Royal had been destroyed, and this paper estimated the number of fatalities between 1,500 and 2,000. Cf. US Geological Survey, 'Earthquake Hazards Program', https://web.archive.org/web/20091217203828/http://earthquake.usgs.gov/earthquakes/world/events/1692_06_07.php (accessed 5 May 2021).

36 See also *Oprechte Haerlemse courant* (25 September 1692) and (30 September 1692).

it was an explosion, but after a few days he found out – possibly via the newspapers – that it had really been an earthquake.[37]

At present, we can conclude that the many news items in the Dutch newspapers can be explained both by the 1692 earthquake occurring nearby and because it was one of the most powerful in Western Europe reported up to that time. It measured an estimated magnitude of 6.3 in the epicentre, which was the Walloon city of Verviers.[38] In the same period, the Southern Netherlands generated much news as well because they were one of the battlefields of the War of the League of Augsburg against France. Therefore, many people living there were hit particularly hard.

In 1692 Dutch readers were confronted with news not only about the Western European and Jamaican earthquakes but also with reports on rather harmless shocks in the cities of Nafplio in Greece, Genoa, Steinfeld in the German Eifel, and Cologne.[39] Earthquakes had become a recurring topic in the Dutch newspapers. They predominantly represented a culture of factual information that could be retrieved from and confirmed by other news media such as letters, sheets, pamphlets, and papers from abroad. Compared to scholarly pamphlets and magazines and extensive discourses and histories, they were not much focused on philosophical notions and learned explanation. But precisely what kinds of factual information did the newspapers provide?

Reporting Styles and Characteristics

Over the years, the content of earthquake reports in Dutch newspapers showed many similarities; in other words, their patterns did not change much. The news items usually indicated the earthquake's place or region, the moment at which it had occurred (day or date, sometimes with the exact hour), and its gravity (through an adjective), as the following short notice in the *Amsterdamse courant* of 23 June 1746 exemplifies 'Naples 31 May. Monday night, people felt a light earthquake here'.[40] More extensive messages could

37 Christiaan Huygens, *Oeuvres complètes*, 22 vols, vol. 19: *Mécanique théorique et physique 1666–1695*, ed. J.A. Vollgraff (The Hague: Martinus Nijhoff, 1937), 311.

38 About this earthquake: Pierre Alexandre et al., 'The 18 September 1692 Earthquake in the Belgian Ardenne[s] and Its Aftershocks', in Julien Fréchet, Mustapha Meghraoui, and Massimiliano Stucchi (eds), *Historical Seismology. Modern Approaches in Solid Earth Sciences* (Dordrecht: Springer, 2008), vol. 2, 209–30.

39 *Amsterdamse courant* (15 March 1692), (11 October 1692), and (1 November 1692).

40 'Napels den 31 May. Maendag nagt gevoelde men hier een ligte aerdbeving'. The duration could also be indicated as a long Ave Maria ('een groot Ave Maria') or half of the prayer of Our


A°. 1746. N°. 25
AMSTERDAMSE Donderdaegse Courant
Werd uytgegeven by Beyden de Beurs, Post-Comptoir; HENDRIK LINSEN, by het Antwerpsche den 23 Juny.
ITALIEN.
GROOT BRITTANNIEN.
NEDERLANDEN.

Figure 11.2 Part of the front-page of *Amsterdamse courant* (23 June 1746), with news about an earthquake in Naples. KB – National Library of the Netherlands, The Hague. Source: Delpher (accessed 22 April 2022)

include the duration of earthquakes in minutes, their numbers of shocks and aftershocks, and their natural consequences, such as flooding and landslides.

Most earthquakes were qualified either as light (*licht*) or heavy (*zwaar*), but other adjectives were also used, such as small (*klein*), great (*groot*), fierce (*hevig*), harsh (*hard*), strong (*sterk*), severe (*fel*), violent (*violent*), terrible (*verschrikkelijk*), horrible (*afgrijzelijk* and *gruwelijk*), dangerous (*vervaarlijk*), and dreadful (*allerijselijk*).[41] The 25–26 April 1687 earthquake in Naples was even classified as a 'very heavy earthquake' ('seer sware Aertbeving').[42] In the 1750s the Haarlem editor introduced the phrase 'harmless earthquake' ('onschadelyke aardbeving') for classifying it as a light case without serious damage.[43] Other

Father ('een half Pater-noster'). *Haerlemse courante* (10 July 1660); *Oprechte Haerlemsche courant* (25 September 1692).

41 See e.g. *Amsterdamse courant* (21 September 1702): 'kleyne aerdbeving' on Barbados, (4 August 1729): 'heevige aerdbeeving' in Velletri near Rome, (29 April 1730): 'felle aerdbeeving' in Massa and Carrara, Tuscany, (20 May 1747): 'afgryzelyke aerdbeving' in Foligno, etc.; *Haerlemse courante* (10 July 1660): 'harde Aertbevinge' in Bordeaux; *Oprechte Haerlemse courant* (24 July 1683): 'violente Aertbeving' in Vicentino region, (21 September 1683): 'groote Aerdbeving' in Ledbury (26 October 1683): 'schrickelijcke Aerdbeving' in Coventry (4 September 1734): 'stercke Aerdbeving' on Iceland; *'s Gravenhaegse courant* (13 August 1728): 'vervaerlyke aerdbeevingen' in the Abruzzo region; *Opregte Groninger courant* (6 June 1752): 'gruwelyke Aerbeving in Stavanger; *Leeuwarder courant* (26 October 1754): 'alleryzelykste Aardbeving' in Constantinople.

42 *Oprechte Haerlemsche courant* (24 May 1687).

43 See e.g. *Oprechte Haerlemsche courant* (10 October 1751): Nocera and Gualdo, Italy, (2 December 1751): Naples, (28 March 1752): Falun, Sweden, (29 June 1752, 10 August, and 21 October 1752):

rather vague descriptions were also used to indicate minor cases, such as 'some movements of an earthquake' ('eenige bewegingen van een Aertbeving').[44]

Before the introduction of seismic magnitude scales, such as the Richter scale in 1935, words were one of the best ways to provide the readers with impressions. The Cypriot earthquake of April 1735, for example, was described as the heaviest since time immemorial on the isle.[45] An earthquake's force could also be compared with a previous one. The 1703 earthquake in Rome, for instance, was considered stronger than the earthquake that had happened during Roman emperor Nero's reign.[46] Such comparisons were rare, however.

Longer reports included information on whether or not an earthquake had caused damage, and if so, what kind of damage, such as collapsed churches, houses, and other buildings. The same goes for numbers of fatalities that ranged from a few people to several thousands. For example, a report about the disastrous earthquake that struck Palermo in 1726 speaks about 3,000 people that had been found dead among the debris.[47] The earthquake in the Kingdom of Valencia of 1748 was said to have led to 5,000 people being buried alive, in conjunction with the collapse of many buildings, such as the medieval castle of Montesa.[48] A dramatic report about the earlier earthquake that destroyed the southern Italian city of Benevento in 1688 states that few of the 6,000 inhabitants had survived the disaster.[49]

The numbers of casualties in the accounts about non-European earthquakes will have particularly impressed Dutch readers; they were perhaps beyond their imagination. First reports about the Beijing Earthquake of 30 September 1730 include estimations of around 100,000 victims, a figure that was later adjusted downwards to 36,000, which is still a dramatic number.[50] Even more impressive must have been the number of 300,000 deaths, allegedly caused by a cyclone and earthquake in India's

Central Italy.

44 See e.g. *Oprechte Haerlemsche courant* (16 December 1690) and (19 December 1690).

45 *'s Gravenhaegse courant* (7 September 1735).

46 *Oprechte Haerlemsche courant* (27 February 1703).

47 *Oprechte Haerlemsche courant* (12 October 1726). A report in this newspaper of 10 October 1726 mentions the figure of even 8,000 victims.

48 *'s Gravenhaegse courant* (29 April 1748); Elisa Buforn et al., 'The 1748 Montesa (Southeast Spain) Earthquake – A Singular Event', *Tectonophysics* 664 (2015), 139–53. See also the extensive report in *Hollandsche Historische courant* (2 May 1748).

49 *Oprechte Haerlemsche courant* (3 July 1688). The present estimation of victims of this earthquake called Sannio is about 10,000, but this figure concerns the whole province.

50 *'s Gravenhaegse courant* (15 August 1731); *Oprechte Haerlemsche courant* (16 August 1731), (18 August 1731), and (25 October 1731).

Chandannagar (near Kolkata) on 11 October 1737, resulting in a 13-metre storm surge in the Ganges River. The account in the Haarlem newspaper of 5 June 1738 also mentions the drowning of many animals and the loss of thousands of small boats and one French, two Dutch, and eight English ships.

The information about the human victims was far from precise, however, as Roger Bilham argued in 1994. At the time, Kolkata had about 20,000 inhabitants and the number of fatalities was most likely not greater than around 3,000 people. Bilham even disputes the existence of an earthquake as such, since it is not mentioned in the British East India Company reports. However, Pitta Govinda Rao rejected that idea, stating that an earthquake did occur in the vicinity of Kolkata during the night of 11 October.[51] At the time, European contemporaries could rely only on the sensational news reports, which would be trusted until the twentieth century.

The reports rarely include names of victims, most of which were anonymous ordinary people. An exception is Gregorius (or Joris) Croock, who was on his way to Constantinople in 1667 to become a Dutch resident in the Ottoman Empire.[52] However, he never reached his destination because he lost his life during the destructive earthquake that ruined Ragusa (present-day Dubrovnik) in April. His travelling companion Jacob van Damme, the intended Dutch consul of Smyrna, survived the tragedy, and returned to The Hague via Venice, where he informed the States General about the circumstances.[53] The Ragusa Earthquake was one of the most devastating earthquakes in the region that is part of Croatia today, killing around 2,000 citizens.[54]

A frequently mentioned human reaction, especially during the start of an earthquake, was going outside, leaving houses and public buildings in a hurry. This could lead to congestion in the streets, which happened in

51 Roger Bilham, 'The 1737 Calcutta Earthquake and Cyclone Evaluated', *Bulletin of the Seismological Society of America* 84: 5 (1994), 1650–57; Pitta Govinda Rao, 'A Probe into the Calcutta Earthquake of 1737', *Current Science* 69: 5 (1995), 476–78.

52 Other exceptions are 'Princess Altieri', who was reported to have had a miscarriage in 1750 because of an earthquake, and the French ambassador Pierre Puchot des Alleurs, who passed away because of a stroke due to an earthquake in Constantinople. *Oprechte Haerlemsche courant* (10 March 1750); *Opregte Groninger courant* (10 January 1755).

53 *Oprechte Haerlemsche courant* (14 May 1667) and (31 May 1667); O. Schutte, *Repertorium der Nederlandse vertegenwoordigers, residerende in het buitenland, 1584–1810* (The Hague: Martinus Nijhoff, 1983), 99, 332–33.

54 Paola Albini and Andrea Rovida, 'From Written Records to Seismic Parameters. The Case of the 6 April 1667 Dalmatia Earthquake', *Geoscience Letters* 3 (2016), 1–9. In 1667 Van Damme's sad story and other information about the earthquake could be found in the annual *Hollandsche Mercurius*; see vol. 18, 43–50. According to *Oprechte Haerlemsche courant* (7 January 1681), the restoration of Ragusa went well.

Figure 11.3 Jan Luyken, *Earthquake that Destroyed Ragusa (Dubrovnik) in 1667*, etching, 10.8 × 15.5 cm, published in the second volume of Gottfried's *Historische kronyck*, 1698, col. 965. Rijksmuseum, Amsterdam, RP-P-1896-A-19368-1509

London in September 1692. That earthquake struck at the busiest moment of the stock exchange.[55] A great panic also occurred in Rome a week after an earthquake in February 1703, when malicious men called upon all people to leave their houses 'on the orders of the Pope' during the night. The urban militia had to refute the appeal and calmed the people by telling them that the Pope had never given such an order.[56]

Normally, many people fled to gardens in the cities or to the countryside because of the destruction of their houses, danger of further collapse, and fear of aftershocks.[57] Queen Christina of Sweden, who lived in Rome after her abdication, and other important persons decided to have tents put up in the gardens of their palaces in June 1668, after a rumour about an impending earthquake had been spread.[58] Poor people had to sleep in the open air or in tents and provisional barracks or sheds made from timber, if these were provided.[59] In 1737, when King Charles VII of Naples slept in his royal tent

55 *Amsterdamse courant* (25 September 1692).

56 *Oprechte Haerlemsche courant* (1 March 1703).

57 In 1702 it was problematic for prisoners to escape because they were chained on bars and hung in the air during an earthquake. See *Oprechte Haerlemsche courant* (22 April 1702).

58 *Oprechte Haerlemsche courant* (10 July 1688).

59 See e.g. *Oprechte Haerlemsche courant* (17 November 1703).

because he was afraid of new earthquakes, it was even newsworthy to mention that he had got a cold.[60] The elite could also afford to leave their home towns and go to country houses. For example, Elbert de Hochepied, ambassador of the Dutch Republic in the Ottoman Empire, swapped Constantinople for a village near the Black Sea because of ongoing earthquake danger in 1748.[61]

Some the stories were dedicated to governmental actions, such as organising shelter for survivors, reparations and their costs, and precautions and bans. In 1688 Spanish king Charles III cancelled bull fighting in Madrid because of the sad tidings about an earthquake in the Kingdom of Naples, which was one Charles's possessions. When in 1703 smoke from an earthquake would supposedly have caused brain damage in Rome, the authorities decided to bring three citizens to the madhouse and to imprison several others because of their 'strange opinions'.[62] In 1728 the Pope prohibited festivities during Carnival because of ongoing earthquakes, rain and floods, and in 1732 he banned the performance of comedies during Carnival out of respect for the earthquake victims in Naples.[63] Papal admonitions to support the poor with alms were also newsworthy, as were his orders for restorations such as the rebuilding of Norcia in 1703.[64] In 1751 an Italian bishop sold all his silverware to help people who were ruined by the latest earthquake in his territory.[65] Dutch readers will very likely have appreciated such forms of solidarity.

We can assume that most of the province of Holland's newspaper readers were Protestants.[66] Since most European earthquakes happened in Roman Catholic countries, these readers were regularly confronted with typical Catholic reactions to disasters. A few examples will suffice here. In 1724 the clerics of Faro (Portugal) organised a procession with a new statue of St Barbara, hoping that by doing this they would be spared from new

60 *Oprechte Haerlemsche courant* (7 March 1737).

61 *Leydse courant* (13 September 1748).

62 *Amsterdamse courant* (21 June 1703).

63 *Oprechte Haerlemsche courant* (19 February 1728) and (27 December 1732). Another ban of carnival in this newspaper of 14 February 1711.

64 See e.g. *Amsterdamse courant* (17 February 1703) and (24 February 1703); *Oprechte Haerlemsche courant* (14 January 1704). An example of societal support is a collection in the whole Kingdom of Naples for survivors of an earthquake on Sicily in 1751. *Opregte Groninger courant* (17 September 1751).

65 *Oprechte Haerlemsche courant* (30 September 1751).

66 Most newspapers were published and read in Holland, a province with 20 per cent Roman Catholics at most. Their percentage in the Dutch Republic in 1726 has been estimated at 34 per cent. Hans Knippenberg, *De religieuze kaart van Nederland. Omvang en geografische spreiding van godsdienstige gezindten vanaf de Reformatie tot heden* (Assen and Maastricht: Van Gorcum, 1992), 23.

earthquakes and other disasters.[67] In 1727 a Neapolitan report stated that after a stormy night with an earthquake the weather became quiet as soon as the city began its devotions. This piety was a reaction to the exhibition of St Januarius's head, which had been ordered by the archbishop. Furthermore, the viceroy of Naples had visited a church to reveal the 'miraculous Statue of the Crucifix'.[68] In 1728 the Pope admonished the people to gain an indulgence by praying for mercy because of the many disasters, including earthquakes.[69] In 1751 a Genoese reporter explained the lack of earthquake damage as a result of God's mercy and the protection of Maria.[70] The Dutch newspapers published such eyewitness accounts and digressions without comment or judgement. They only translated or copied the information they retrieved.[71]

Thanksgiving masses, soul masses for deceased earthquake victims and other – not exclusively Roman Catholic – prayers were also reported.[72] In 1705 the Pope had ordered prayers for the ailing Portuguese king in all the churches of Rome because the king had supported this city after its recent earthquakes.[73] Another characteristic Christian reaction can be found in a story about the 1731 earthquake in the southern Italian city of Foggia. The author described it as a 'terrible spectacle' that seemed to be the start of Judgement Day.[74]

A supernatural phenomenon was noted in 1733. People were said to have seen a bloody cross in the sky during an earthquake in the Kingdom of Naples.[75] When the local bishop referred to this during the consecration, the host appeared to be bloody as well. Protestants – who rejected the transubstantiation doctrine – must have frowned when they read such a sensational account, which was probably published only out of fascination. Dutch readers were also confronted with the measures taken by the Neapolitan viceroy against several monks in 1730. He threatened to expel them from all monasteries in his kingdom if they would continue their dispersion of false warnings regarding an expected earthquake. Many people had also been scared by the alleged sweating of a

67 *Leydse courant* (31 March 1724). A terrible earthquake had struck the Algarve at the end of 1722 according to *Leydse courant* (24 February 1723) and (26 February 1723).

68 *Leydse courant* (7 November 1727).

69 *Leydse courant* (30 January 1728).

70 *Oprechte Haerlemsche courant* (16 December 1751).

71 See e.g. Koopmans, *Early Modern Media*, 262–64.

72 See e.g. *Amsterdamse courant* (24 February 1742), (15 March 1703), (17 March 1703), (21 July 1729), and (8 February 1742); *Oprechte Haerlemsche courant* (26 February 1693), (17 March 1703), and (31 March 1703).

73 *Oprechte Haerlemsche courant* (7 April 1705).

74 *Oprechte Haerlemsche courant* (9 June 1731). The idea of Judgement Day is also present in the account of the 1667 Dubrovnik earthquake in *Hollandsche Mercurius* 18 (1667), 45.

75 *Amsterdamse courant* (10 January 1733).

statue of the Virgin Mary and had left their houses half naked during the night. Some of them had stopped carriages of 'decent people', had forced them to buy wax candles for the 'miraculous Crucifix' and plundered houses.[76]

In 1713 all Christians will have been worried about the news about an earthquake in Palestine that had greatly damaged the chapel of the Holy Sepulchre in Jerusalem and the 'Temple' in Bethlehem. The short report ended with the remark that the hatred and conflicts between the Greek Orthodox Christians and the Roman Catholics over the possession of the holy places in Palestine increased daily.[77] Although the report does not make the connection, Dutch readers might well have concluded that the earthquake reflected societal disharmony. Nonetheless, this disaster did not lead to more harmony between different Christian denominations.

Overall, the newspapers did not provide many indications regarding the causes of the earthquakes mentioned. In 1727, however, the Leiden paper stated that the earthquakes in the Algarve had without a doubt been caused by a huge fire between the Portuguese cities of Faro and Tavira.[78] It was difficult to contradict such an explanation in a period when scholars still discussed possible reasons predominantly within a religious framework, while religious authorities continued to tell people that it was God's will. Nevertheless, a story in the Groningen newspaper of 1750 is exemplary for the increasingly rational approach towards the phenomenon. When a young English lady, who denied all stories about quakes, suggested during an earthquake that she could cause a next shock by jumping, the Groningen newspaper characterised this as stupid behaviour of a person without knowledge.[79] It would be interesting to research whether this editorial reaction was unique or exemplified a new trend in the newspapers that were published after 1750. Anyhow, when geologists found out in the nineteenth century that earthquakes happened along fault lines, such forms of speculation could be rejected forever.[80]

Final Remarks

This chapter demonstrates that readers of early modern Dutch newspapers were already familiar with earthquake reports long before the

76 *'s Gravenhaegse courant* (27 April 1731).

77 *Oprechte Haerlemsche courant* (11 February 1713).

78 *Leydse courant* (26 February 1723). About this fire theory and other theories about causes of earthquakes before 1755, see Guidoboni and Ebel, *Earthquakes and Tsunamis*, 147–75.

79 *Opregte Groninger courant* (3 November 1750).

80 Vermij, *Thinking on Earthquakes*, 2.

devastating Lisbon Earthquake of 1755. Although these papers covered predominantly political news from Europe since their start in the late 1610s, earthquakes would soon be a part of the regularly discussed natural phenomena. This was not restricted to the most serious cases. On the contrary, even minor quakes, with no or little damage, were considered newsworthy. News correspondents deemed even shocks that had merely frightened people to be important enough to communicate. The very idea of sudden shakings of the ground that could destroy complete regions was extremely terrifying. Every new report about another earthquake will have revived or strengthened this fear. Besides, since reports of earthquakes came from a great variety of places in the world, Dutch readers could get the impression that this phenomenon seemed to happen everywhere.

While many news items about earthquakes remained short and did not exceed one or a few sentences, reports about serious cases became longer over the years. This was not so much the result of editorial choices but became possible because of the expanding news dissemination in Europe during the eighteenth century. Reports could increasingly include specific details about the earthquakes themselves, their damage and consequences, numbers of victims, and the reactions of survivors. And sometimes they also narrated trivial news. When Dutch people were involved in the covered earthquakes, that fact was particularly addressed. This practice can be considered an enduring journalistic characteristic: to report how many fellow citizens were involved in a disaster abroad and whether they passed away.

As long as people could not explain earthquakes in a satisfactory way, speculation remained all kinds of publications. Typically, however, the Dutch newspapers mainly treated facts and figures, although within the existing societal framework. They represented, as far as possible, a media culture of accuracy, although sometimes with a touch of sensationalism. Readers could read dominant opinions only between the lines and draw conclusions for themselves. The well-known religious (and widely accepted) idea was that earthquakes were punishments of God, and that people should repent their sins. This thought was neither denied nor questioned, nor openly proclaimed in the reports, but it was implicitly taken for granted.

Dealing with earthquakes was a matter of fate and acceptance. Dutch newspaper readers could only hope that next issues would bring more positive news that would correct earlier dramatic accounts and, in the meantime, that they themselves would be saved from earthquakes and other disasters.

About the Author

Joop W. Koopmans is Associate Professor of Early Modern History at the University of Groningen, with a special interest in the interaction between media and politics. He has written many books and articles in this field, among them *Early Modern Media and the News in Europe. Perspectives from the Dutch Angle* (Leiden: Brill, 2018). His latest monograph is *Het nieuws verbeeld. Oorlog en vrede in de titelprenten van de Europische Mercurius (1690-1750)* (Verloren 2021), a book about the frontispieces of the news periodical *Europische Mercurius*. Since 2020 he has served as chair of the Royal Frisian Society (est. 1827).