

Outbreak or epidemic? How Obama's language choice transformed the Ebola outbreak into an epidemic

Anat Gesser-Edelsburg^{1**}, Yaffa Shir-Raz¹, Oshrat Sassoni-Bar Lev² and Manfred S. Green¹

1. School of Public Health, University of Haifa, 199 Aba Khoushy Ave. Mount Carmel, Haifa 3498838, Israel

2. Department of Communication, University of Haifa, 199 Aba Khoushy Ave. Mount Carmel, Haifa 3498838, Israel

* Corresponding Author ageser@univ.haifa.ac.il

† Head of Health Promotion Program, University of Haifa, 199 Aba Khoushy Ave. Mount Carmel, Haifa 3498838, Israel



Targeting Ebola International Congress 2015: Scientific Bases & Applications, Pasteur Institute, Paris, May 28-29, 2015



ASSET - Action plan on Science in Society related issues in Epidemics and Total pandemics, is a 48 months project, which aims to:

- 1) forge a partnership with complementary perspectives, knowledge and experiences to address effectively scientific and societal challenges raised by pandemics and associated crisis management
- 2) explore and map SIS-related issues in global pandemics
- 3) define and test a participatory and inclusive strategy to succeed
- 4) identify necessary resources to make sustainable the action after the project completion.

ASSET combines public health, vaccine and epidemiological research, social and political sciences, law and ethics, gender studies, science communication and media, in order to develop an integrated, transdisciplinary strategy, which will take place at different stages of the research cycle, combining local, regional and national levels.

Objectives

Our aim was to examine in what terms central newspapers' online sites describe the current Ebola crisis.

Methods

We employed a quantitative content analysis of terms attributed to Ebola. We found and analyzed 582 articles published between March 23-September 30, 2014 on the online websites of three newspapers: *The New York Times*, *Daily Mail* and *Ynet*.



Results

"Outbreak" and "epidemic" were mainly used interchangeably in the articles. From September 16, 2014, "epidemic" was used more frequently, corresponding to when Barack Obama explicitly referred to Ebola as an "epidemic". Prior to Obama's speech, 86.8% of the articles (323) used the term "outbreak" and only 8.6% (32) used the term "epidemic".

Following the speech, both terms were used almost equally: 53.8% of the articles (113) used the term "outbreak", and 53.3% (112) used the term "epidemic".

Table 1: Number of articles used the terms "Outbreak", "Epidemic", "Disease", "Virus", and "Other", to describe the Ebola in *The New York Times*, *Daily Mail* & *Ynet*, before and after president Obama's speech

Newspaper (Country)	Before/After president Obama's speech	Outbreak		Epidemic		Pandemic		Disease		Virus		Other		Total no. of articles	Total no. of articles	χ^2 , df, p	z, p (Outbreak vs. Epidemic only)
		N	%	N	%	N	%	N	%	N	%	N	%				
New York Times (USA)	Before	51	94.4%	3	5.6%	---	---	---	---	---	---	---	---	54	80	22.16, 1, <0.001	-4.71, <0.001
	After	14	53.8%	14	53.8%	---	---	---	---	---	---	---	---	26			
Daily Mail (United Kingdom)	Before	263	93.3%	22	7.8%	1	0.4%	3	1.1%	2	0.7%	---	---	282	444	97.90, 4, <0.001	-9.61, <0.001
	After	93	57.4%	80	49.4%	---	---	---	---	5	3.1%	---	---	162			
Ynet (Israel)	Before	9	25.0%	7	19.4%	---	---	1	2.8%	14	38.9%	2	5.6%	36	58	15.11, 4, <0.01	-2.00, <0.05
	After	6	27.3%	18	81.8%	---	---	---	---	3	13.6%	---	---	22			
Total	Before	323	86.8%	32	8.6%	1	0.3%	4	1.1%	16	4.3%	2	0.5%	370	582	128.06, 5, <0.001	-11.08, <0.001
	After	113	53.8%	112	53.3%	---	---	---	---	8	3.8%	---	---	117			

Conclusion

Effective communication is crucial during public health emergencies such as Ebola, because language affects the decision-making process of social judgments and another ("epidemic") can create different conceptualizations of the disease, thereby influencing the risk signature.

References (selected)

1. Aronson, S.S., & Shope, T. R. (2008). Outbreak, epidemic, and other infectious disease emergencies. In S. S. Aronson & T. R. Shope (Eds.), *Managing Infectious Diseases in Child Care and Schools: A Quick Reference Guide*, 2nd Edition (pp. 169-171). Elk Grove Village, IL: American Academy of Pediatrics.
2. Associated Press. (April 30, 2013). Top 10 newspapers by circulation. Wall Street Journal website. Retrieved from http://www.huffingtonpost.com/2013/05/01/newspaper-circulation-top-10_n_318622.html
3. Bennett, W. L. (1990). Toward a theory of press-state relations in the United States. *Journal of Communication*, 40(2), 109-127. doi: 10.1111/j.1460-2464.1990.tb02026.x
4. Brinkley, T., & Hoffman, G. (1998). Using general semantics as the theoretical foundation for teaching media literacy. *W.K. S.P. Holston (Eds.), Developing Literacy in Human Affairs* (pp. 311-319). Westport, CT: Greenwood Press.
5. Brinkley, T. (2002). Who will Lead After the Health of the Media? Ramat Gan: Israel Medical Council.
6. Castillo, M. (October 24, 2014). CDC Director Tom Frieden faces rise of criticism. CNN. Retrieved from <http://edition.cnn.com/2014/10/24/health/cdc/index.html>
7. Centers for Disease Control and Prevention. (2014a, October 3, 2014). 2014 Ebola outbreak in West Africa. Retrieved October 7, 2014. From <http://www.cdc.gov/ebola/outbreak/2014-west-africa/index.html>
8. Centers for Disease Control and Prevention. (2014b, October 3, 2014). 2014 Ebola outbreak in West Africa. Retrieved October 7, 2014. From <http://www.cdc.gov/ebola/outbreak/2014-west-africa/index.html>
9. Centers for Disease Control and Prevention. (2014c, October 20, 2014). Ebola. Retrieved October 7, 2014. From <http://www.cdc.gov/eid/topic/ebola/>
10. Chory-Russ, B. M., & Tamborini, R. (2007). Television doctors: An analysis of physician in fictional and non-fictional television programs. *Journal of Broadcasting & Electronic Media*, 45(3), 499-521. doi: 10.1207/s15507686jbem4503_8
11. Cooper, H., & Hedges, L. (September 16, 2014). Obama press conference on Ebola outbreak. *The New York Times*. Retrieved from http://www.nytimes.com/2014/09/16/world/africa/obama-urges-world-to-bolster-ebola-response.html?_r=1
12. Covello, V. T. (2003). Best practices in public health risk and crisis communication. *Journal of Health Communication*, 8, 5-8.
13. Cunningham, B. (2003). Re-thinking objectivity. *Columbia Journalism Review*, July/August, 24-32.
14. Croteau, G., & Hofer, A. J. (1999). *Social text and the management of risk*. London: Earthscan Publications.
15. Davis, J. J. (1995). The effects of message framing on responses to environmental communication. *Journalism and Mass Communication Quarterly*, 72(2), 285-299.
16. Earle, T. C., & Cvetkovich, G. (1995). *Social trust: towards a cosmopolitan society*. Westport, CT: Praeger.
17. Entwistle, V. (1995). Reporting research in medical journals and newspapers. *BMJ*, 310(6964), 920-921.
18. Fraga, S. (October 24, 2014). New York Times: Obama 'angry' over Ebola response. *Newswise*. Retrieved from <http://www.newswise.com/Newswise/obama-angry-ebola-crisis/20141024/1460251546/News3Gd4f4am>
19. Flynn, P. (7 June 2012). The handling of the H1N1 pandemic: more transparency needed. (Doc. 12283). Parliamentary Assembly, Council of Europe.
20. Freeman, V., Levine, H., & Potter, P. (2000). Communicating the threat of emerging infections to the public. *Emerging Infectious Diseases*, 6(4), 537-547. doi: 10.1093/emid/6.4.537
21. Frewer, L., Hunt, S., Brennan, M., Kuznetsov, S., Nuss, M., & Risken, C. (2003). The views of scientific experts on how the public conceptualize uncertainty. *Journal of Risk Research*, 6, 75.
22. Gans, M. J. (2008). *Decoding Obama's News: A Study of CBS Evening News, NBC Nightly News, Newsweek, and Time*. NY: Vintage.
23. Gesser-Edelsburg, A., Shir-Raz, Y., & Green, M. S. (In Press). Why do parents who usually vaccinate their children hesitate or refuse? General good vs. individual risk. *Journal of Risk Research*.
24. Gorman, M. L., Shugart, P. A., Burroughs, C. L., Fields, R., & Hollibaugh, J. (2010). Newspaper content analysis in evaluation of a community-based participatory project to increase physical activity. *Health Educ Res*, 25(4), 656-667. doi: 10.1093/her/cyq049
25. Green, M. S., Swartz, T., Maybar, C., Lee, B., Lavee, A., Sider, P. E., & Shiner, J. (2002). When is an epidemic an epidemic? The Israeli Medical Association's Journal. *IMAJ*, 4(1), 3-6.
26. Hollibaugh, M. A. K. (2004). *The Language of Science*. Collected Works of M.A.K. Hollibaugh. J. Webber, Ed. Vol. 5). London and New York: Continuum.
27. Holmes, B. J., Henrich, M., Hancock, S., & Leshko, V. (2009). Communicating with the public during health crises: expert experience and opinions. *Journal of Risk Research*, 12(6), 793-807. doi: 10.1080/13668870802468466
28. Kahneman, D., & Tversky, A. (1979). Prospect Theory: An analysis of decision making under risk. *Econometrica*, 47, 251-281.
29. Kahneman, D., & Tversky, A. (1982). The psychology of preferences. *Scientific American*, 46, 160-173.
30. Loshak, R. C. (2005). Risk management in post-trust societies. *London: Palgrave Macmillan*.

For more information on the ASSET project please go to <http://www.asset-scienceinsociety.eu/>



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 612236.