Media choice for communication about epidemic diseases in the Netherlands and the UK: A mismatch between sender and receiver!

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Outline of the paper

- Cultural differences in the use of communication media in the light of the *Information Richness Theory*, *the Context Theory* and the value *Uncertainty Avoidance*.

- Expectations regarding differences between the Netherlands and the UK in the use of communication media to inform about the Swine flu (senders’ perspective).

- Corpus Analysis: Communication media used in the Netherlands and in the UK to inform about the Swine flu.

- Expectations regarding differences between the Netherlands and the UK in the preference for communication media when informed about an epidemic disease (receivers’ perspective).

- Experiment: Communication media that the Dutch and the British target group preferred most when informed about an epidemic disease.

- Conclusion, discussion and implications for health communication.
Information richness theory and communication media (Daft and Lengel 1984)

![Diagram of Information Medium vs. Information Richness]

- Face-to-Face: Highest
- Telephone: High
- Written, Personal (letters, memos): Moderate
- Written, Formal (bulletins, documents): Low
- Numeric Formal (computer output): Lowest

Figure 1. Communication Media and Information Richness.
Information richness determined by:

1. Type of cues a medium passes on – verbal, non-verbal, vocal cues etc.;

2. How easy it is to give feedback;

3. Extent to which the message can be tuned to the receiver;

4. Natural language or not.
Problems with the Information Richness Theory

Based only on the perspective of the sender of the message

Based only on research in the United States, a rather low context culture
The Context theory of Edward T. Hall

Cultures differ in the extent to which they use context and situation for the interpretation of a message.

In **high-context cultures**, most of the meaning of a message is deduced from the context in which the words occur (e.g. non-verbal communication and setting).

In **low-context cultures**, the meaning of a message is primarily deduced from the words.
<table>
<thead>
<tr>
<th>High context</th>
<th>Asian cultures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Arabic cultures</td>
</tr>
<tr>
<td></td>
<td>Latin-American cultures</td>
</tr>
<tr>
<td></td>
<td>Italian cultures</td>
</tr>
<tr>
<td></td>
<td><strong>British cultures</strong></td>
</tr>
<tr>
<td></td>
<td>French cultures</td>
</tr>
<tr>
<td></td>
<td>North-American cultures</td>
</tr>
<tr>
<td></td>
<td><strong>The Netherlands</strong></td>
</tr>
<tr>
<td></td>
<td>Scandinavian cultures</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
</tr>
<tr>
<td>Low context</td>
<td><strong>Swiss-German</strong></td>
</tr>
</tbody>
</table>
Information richness theory and context theory

Communication media high in richness will be used more frequently in high context cultures than in low context cultures.

Communication media low in richness will be used more frequently in low context cultures than in high context cultures.
The value uncertainty avoidance of Geert Hofstede (2001)

Cultures with a high uncertainty avoidance have a much greater need for clarity and preclusion of ambiguity and uncertainty than cultures with a low uncertainty avoidance.
Information richness theory and uncertainty avoidance

Communication media high in richness will be used more frequently in cultures with a low uncertainty avoidance than in cultures with a high uncertainty avoidance.

Communication media low in richness will be used more frequently in cultures with a high uncertainty avoidance than in cultures with a low uncertainty avoidance.
The Netherlands and the UK

The Netherlands has a lower context than the UK.

The Netherlands has a higher uncertainty avoidance than the UK.
Expectation 1 tested in corpus analysis (senders’ perspective)

1a. The Dutch more often use communication media with low information richness than the British do.

1b. The British more often use communication media with high information richness than the Dutch do.
Corpus analysis: Method

Analysis of all the communication media used by the Dutch and the British government to inform the public about the Swine flu.

Dutch campaign: *Grip op Griep* (catch the flu). Start August 19th 2009


Restriction to external communication, communication with residents of the Netherlands and the UK
Netherlands: Communication media used in the campaign *Grip op Gripep*

**Passive:** Residents received information from the government through the following communication media
- Brochures sent to all addresses in the Netherlands
- Flyers
- Posters
- Banners
- Radio and tv commercials
- Letters to organisations on how to avoid infection
- Advertisements about vaccination
- Newsletter

**Active:** Residents could consult the following communication media for information
- Call a toll free number
- Surf to the web site grieppandemie.nl
- Watch a video on the internet showing a doctor giving explanation about the Swine flu virus
- Follow Twitter.com/grieppandemie
- Ask questions to a doctor in a video chat session
Wat is Nieuwe Influenza A (H1N1)?
Nieuwe Influenza A (H1N1) is een virus dat griep veroorzaakt. Het griepvirus verspreidt zich via de lucht en wordt overgedragen door druppeltjes orde, snot en speeksel. Omdat veel mensen reizen verspreidt het nieuwe griepvirus zich snel over de wereld. Inmiddels hebben al enkele landen neerkomen met dit griepvirus. In Nederland is de officiële naam voor dit virus Nieuwe Influenza A (H1N1), beter bekend als Mexicoanse griep. Mensen die besmet zijn met Nieuwe Influenza A (H1N1) kunnen de griep aan andere mensen overdragen. Daarom is het belangrijk om je handen te wassen en je mond te bedekken bij hoesten en snuiten.

Dat bekent dat het nieuwe griepvirus en de symptomen niet veel afwijken van de normale seizoensgriep. De meeste mensen herstellen binnen een week. Wat wel anders is, is dat veel mensen tegelijkertijd ziek kunnen worden. Als het griepvirus zich vaker gaat verspreiden dan schat men dat 1 op 3 mensen ziek kan worden. Dat kan effect hebben op alledie zaken binnen ons dagelijks leven.

Net als bij de normale seizoensgriep zullen mensen overlijden aan het nieuwe virus. Veel meer mensen zullen besmet raken met en ziek worden door het nieuwe griepvirus. Het aantal mensen dat overlijdt aan de gevolgen van de griep zal daaronder ook hoger zijn.

Hoe kan ik voorkomen dat ik besmet word?

- Was vaak uw handen met water en zeep.
   Het virus kan op uw handen komen als u een voorwerp aanraakt of als u een eetstokje aanraakt of als u uw mond aanraakt. Daarom is het belangrijk uw handen en mond te spoelen en daarna te wassen.
- Raak zo min mogelijk uw ogen, neus en mond aan.
   Het virus kan op uw handen komen en in uw neus, ogen en mond overgebracht worden. Dit kan gebeuren als u uw handen aanraakt of als u uw mond aanraakt. Daarom is het belangrijk uw handen en mond te spoelen en daarna te wassen.
Netherlands: TV commercial “Going Home”

NL Mexicaanse griep video 2.wmv
Netherlands: advertisement “I’m never ill. Should I get the Swine flu vaccine?”
Netherlands: Twitter

Get short, timely messages from grieppandemie. Twitter is a rich source of instantly updated information. It's easy to stay updated on an incredibly wide variety of topics. Join today and follow @grieppandemie.

Vaccinatiecampagne Nieuwe Influenza A (H1N1) afgorand - Nieuws: http://bit.ly/bbbSQq


Stand van zaken: epidemië lijkt voorbij - Nieuws:

http://bit.ly/11vW0h

1:41 All Dec 28th, 2009 via twitter feed

Nieuwe Influenza A (H1N1) officieel geen epidemie meer - Nieuws: http://bit.ly/67y0qI


2:54 All Dec 23th, 2009 via twitter feed


8:01 All Dec 22nd, 2009 via twitter feed


2:43 All Dec 19th, 2009 via twitter feed


4:10 All Dec 17th, 2009 via twitter feed


6:27 PM Dec 15th, 2009 via twitter feed


8:23 All Dec 11th, 2009 via twitter feed


9:54 All Dec 8th, 2009 via twitter feed
UK: Communication media used in the campaign

*Catch it. Bin it. Kill it*

**Passive:** Residents received information from the government through the following communication media
- Brochures sent to all addresses in the UK
- Flyers
- Posters
- Radio and tv commercials
- Advertisements
- Special for children: comic book
- Special for children: a song

**Active:** Residents could consult the following communication media for information
- Call a toll free number
- Surf to the web site nhs.uk and direct.gov.uk/swineflu
- Subscribe to a text message service
UK: tv commercial (sign language)

Televisie commercial gebarentaal.wmv
UK: Nursery rhyme and comic for children

This is Dirty Bertie. He has revolting habits...

Dirty Bertie

One day Bertie caught a cold. Drip, drip, drip went his nose. Sniff, sniff and went Bertie. He coughed and spluttered, sniffled and sneezed. He was even more revolting than usual.

Bertie! We don’t want your germs! Use a tissue.

Mum handed Bertie a tissue. He stuffed it in his pocket and went on slurping his cornflakes. But before long he left the next sneeze brewing.

Aaack!BERK!

Okay?

At school that day Bertie sat next to Donna. Drip, drip, drip his nose dripped like a tap. Bertie wiped it on his sleeve.

Ugh, Bertie! Don’t you have a tissue?

Yes, look!

That’s disgusting! Put it in the bin and get a new one!

BING IT

Nursery Rhyme Catch it. Bin it. Kill it.
UK: poster “sneezing man”
## Communication media used in the Netherlands and the UK, ordered from low in information richness to high in information richness

<table>
<thead>
<tr>
<th>Communication medium</th>
<th>Information Richness</th>
<th>The Netherlands</th>
<th>United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brochure</td>
<td>1</td>
<td>7x</td>
<td>4x</td>
</tr>
<tr>
<td>Flyer</td>
<td>1</td>
<td>1x</td>
<td>1x</td>
</tr>
<tr>
<td>Poster</td>
<td>1</td>
<td>9x</td>
<td>8x</td>
</tr>
<tr>
<td>Banner</td>
<td>1</td>
<td>2x</td>
<td>NO</td>
</tr>
<tr>
<td>Advertisement</td>
<td>1</td>
<td>6x</td>
<td>2x</td>
</tr>
<tr>
<td>Newsletter</td>
<td>1</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Text message</td>
<td>1</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Twitter</td>
<td>1</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Radio commercial</td>
<td>2</td>
<td>7x</td>
<td>4x</td>
</tr>
<tr>
<td>Television commercial</td>
<td>2</td>
<td>3x</td>
<td>2x</td>
</tr>
<tr>
<td>Comic (for children)</td>
<td>2</td>
<td>NO</td>
<td>1x</td>
</tr>
<tr>
<td>Letter</td>
<td>2</td>
<td>1x</td>
<td>NO</td>
</tr>
<tr>
<td>Video doctor</td>
<td>2</td>
<td>5x</td>
<td>NO</td>
</tr>
<tr>
<td>Song (for children)</td>
<td>2</td>
<td>NO</td>
<td>1x</td>
</tr>
<tr>
<td>Website</td>
<td>3</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Telephone number</td>
<td>4</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Video chat</td>
<td>4</td>
<td>2x</td>
<td>NO</td>
</tr>
</tbody>
</table>
Frequency of use of communication media with information richness 1, 2, 3 and 4 for information about the Swine flu for Dutch and UK residents

<table>
<thead>
<tr>
<th>Information Richness media</th>
<th>The Netherlands (N=44)</th>
<th>UK (N=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (low)</td>
<td>26x</td>
<td>15x</td>
</tr>
<tr>
<td>2</td>
<td>16x</td>
<td>7x</td>
</tr>
<tr>
<td>3</td>
<td>0x</td>
<td>1x</td>
</tr>
<tr>
<td>4 (high)</td>
<td>2x</td>
<td>0x</td>
</tr>
</tbody>
</table>
Expectation 1 tested in corpus analysis (senders’ perspective)

1a. The Dutch more often use communication media with low information richness than the British do. Not confirmed

1b. The British more often use communication media with high information richness than the Dutch do. Not confirmed

In both countries media **low in information richness** are used most by senders.
Expectation 2 tested in experiment (receivers’ perspective)

2a. The Dutch target group prefers communication media with low information richness more than the British target group does.

2b. The British target group prefers communication media with high information richness more than the Dutch target group does.
Experiment: Method, respondents

The Netherlands: 103 students studying at the Radboud University Nijmegen in the Netherlands

United Kingdom: 99 students studying at the University of Sheffield in the UK
Imagine a new infectious disease has broken out in another country and is spreading rapidly. The disease is transmitted through person-to-person contact. The disease can cause unpleasant symptoms, such as fever, headache and severe muscle aches, but it is not dangerous. The disease is spreading more rapidly than expected and is now spreading throughout the United Kingdom as well. However, according to the authorities you are not at risk of getting the disease.
### Experiment: Results, preference for communication media

<table>
<thead>
<tr>
<th>Communication medium</th>
<th>Information Richness</th>
<th>The Netherlands (N=103)</th>
<th>UK (N=99)</th>
<th>Significant difference UK versus The Netherlands according to Chi Squares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brochure</td>
<td>1</td>
<td>20</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td><strong>Poster</strong></td>
<td>1</td>
<td>2</td>
<td>18</td>
<td>$\chi^2 = 14.92$, df=1, $p=.001$</td>
</tr>
<tr>
<td>Informational letter</td>
<td>1</td>
<td>35</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Press release in newspaper</td>
<td>1</td>
<td>24</td>
<td>26</td>
<td>$\chi^2 = 4.84$, df=1, $p=.03$</td>
</tr>
<tr>
<td>Radio commercial</td>
<td>1</td>
<td>9</td>
<td>12</td>
<td>NS</td>
</tr>
<tr>
<td>Television commercial</td>
<td>2</td>
<td>40</td>
<td>40</td>
<td>NS</td>
</tr>
<tr>
<td>Announcement in public transport</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>NS</td>
</tr>
<tr>
<td>Website</td>
<td>3</td>
<td>42</td>
<td>39</td>
<td>NS</td>
</tr>
<tr>
<td>Through a practitioner</td>
<td>4</td>
<td>44</td>
<td>32</td>
<td>NS</td>
</tr>
</tbody>
</table>
## Experiment: Results, preference for communication media 2

<table>
<thead>
<tr>
<th>Information Richness</th>
<th>The Netherlands (N=103)</th>
<th>UK (N=99)</th>
<th>Significant difference the Netherlands versus UK according to $\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (low)</td>
<td>90</td>
<td>104</td>
<td>$\chi^2 = 3.68, df=1, p = .05$</td>
</tr>
<tr>
<td>2</td>
<td>41</td>
<td>43</td>
<td>NS</td>
</tr>
<tr>
<td>3</td>
<td>42</td>
<td>39</td>
<td>NS</td>
</tr>
<tr>
<td>4 (high)</td>
<td>136</td>
<td>111</td>
<td>$\chi^2 = 2.79, df=1, p = .09$</td>
</tr>
</tbody>
</table>
Expectation 2 tested in Experiment (receivers’ perspective)

2a. The Dutch target group prefers communication media with low information richness more than the British target group does. NOT CONFIRMED, small indication for contrary

2b. The British target group prefers communication media with high information richness more than the Dutch target group does. NOT CONFIRMED, very small indication for contrary

In both countries communication media **high in information richness** are appreciated most **by receivers**.
Conclusion

The Dutch and British government do not differ when it comes to the information richness of the communication media they used. They mostly used media with low information richness.

The Dutch and UK respondents hardly differ in preference for communication media. Respondents from both countries prefer media with a high information richness.

There is a mismatch between the communication media the governments used to inform about the Swine flu virus and the media the target group prefers.
Discussion

Theories based on cultural values do not predict choice and appreciation of communication media. What could be the reason?

Wrong theories

Interfering factors?

Is the world a global village regarding media choice and media preference?
Implications for health communication

Try to adapt media choice to the preferences of the target group!
GRAZIE PER L'ATTENZIONE
Some references


