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*The Influence of News Tickers  
on Remembering the Remaining Elements of Television Coverage*

**KEY WORDS**

perception, news, television transmission, news tickers, live coverage

**ABSTRACT**

The objective of research presented in the article was determining to what extent television viewers direct their gaze at so-called news tickers and other image objects appearing on screen, and how their presence influences remembering the remaining elements of the audio-visual message. An experiment was conducted on a group of 60 people, in which each participant was asked to watch a short news report and fill out a questionnaire. Half of the group watched a message similar to that aired on television, while the other – a fabricated message, devoid of the mentioned image elements. With the use of an eye tracker, the eye fixation on the footage was registered. After the screening, participants filled out a questionnaire concerning, among others, the reporter's statements, objects visible in the footage and information on the news tickers. It was concluded that watching the feature, the viewer directed his gaze mostly on the reporter and footage, not the tickers. Additionally, viewers took various amounts of time watching certain types of images, rarely looking at information scrolled vertically in the lower left part of the screen than on the tickers scrolled horizontally on nearly its entire length. People who watched the fabricated report did not remember more information from the audio-visual channel than those who saw the original piece.

In summer 2001, the CNN information service was presented for the first time in a new form, with a news ticker (also referred to as a scroll or crawl) at the bottom of the screen, on which short messages were displayed<sup>1</sup>. At first, it was used to present such unique information as weather warnings or election results. It is most likely, however, that the first news ticker ever appeared a long time earlier, during the NBC's *Today Show* broadcast in January 1952, although in a form quite different from the form we know today. It was made of a piece of paper covering the lower part of the screen. This static "strip" proved not to be an efficient

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<sup>1</sup> D. Potter, "Good news on local news", *American Journalism Review* October 2002, p. 84.

communication tool then, and was soon discontinued<sup>2</sup>. In Poland, the news ticker in its present form appeared four years after it did on CNN. It was used by such stations as TVP and TVN during the final days of Pope John Paul II and following the construction disaster in Katowice in 2006.

The traditional approach is to scroll the ticker vertically and separate the information pieces with a symbol, usually the logo of the station. Sometimes an additional ticker is placed in the lower left part of the screen. It is scrolled horizontally then, and shows information scrolling from the bottom up every few seconds. Nowadays, tickers are used by all informational TV stations. During events of significant social or national importance, tickers appear also in regular stations. Tickers moving in the bottom of the screen display various information. They usually scroll to the left, at varied pace and against diverse backgrounds. Extremely important news are displayed against yellow, red, or black background. It is also worth to notice the graphic elements introduced in order to enrich the news being given, such as maps, charts, figures, images, station logos, time and place of the broadcast, and sometimes the viewers' comments as well, which causes the image to be shifted up.

It is often the case nowadays that more than one ticker is used. For instance, the TVN24 station has been using a double ticker since September 1, 2008. The standard ticker is used to display 'ordinary' information, the other one, highlighted in yellow, shows 'urgent' news. The lower ticker also scrolls faster than the other one. Pilot studies have shown that viewers follow the news tickers in different ways, some do it while watching the service, others are bothered by the ticker and ignore it<sup>3</sup>.

From the producer's point of view, the main advantage and function of information tickers is the ability to place one- or two-sentence messages there, which can later be developed in bulletins and news on the recent events in the country and in the world during the course of a service or programme without interrupting it. Viewers can watch the coverage while getting an insight into other news. Information displayed on the ticker should be interesting enough for the viewer, so that he wants to watch the news service which develops what he had just read.

Theoretical considerations of the role played by the ticker in television coverage allow to formulate a research question and then attempt to answer it experimentally. Does such a

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<sup>2</sup> *News ticker*, [www.search.com/reference/News\\_ticker](http://www.search.com/reference/News_ticker) [accessed: 10.03.2012].

<sup>3</sup> P. Francuz, A. Trojanowska-Bis, *Rozumienie przekazu audiowizualnego zawierającego „tekst taśmowy” (TV-ticker) przez osoby zależne i niezależne od pola* [Understanding of audio-visual coverage containing “scrolled text” (TV-ticker) by field dependent and field independent persons], in: *Psychologiczne aspekty komunikacji audiowizualnej* [Psychological aspects of audiovisual communication], ed. by P. Francuz, Lublin 2007, p. 34.

large amount of information in audio-visual coverage make the viewer learn more in a shorter time? Where do viewers direct their gaze watching a media message?

### **Audio-visual coverage as live coverage**

In audio-visual coverage, information is being sent through at least two channels, namely visual and auditory ones. It is a common practice nowadays, especially in news services, to enrich the visual channel with news tickers containing short messages. They also appear during live coverage from places where interesting things are happening. Live coverage, i.e. a live report of the events taking place in real time, is a standard way of transferring information, just like news, and can be found in every information service. Important events, press conferences, matches, concerts, and parliamentary committee sessions are aired. Live coverage is also the name given to calling live (during the programme) either a reporter, who usually is present on the spot, or a guest, who could not arrive at the studio. Several types of such relations can be distinguished; however, in the experiment the research material consists of one such relation aired by a reporter from the event place and does not involve other people speaking, “hundreds”, etc. The context of a live coverage consists of a cue, that is, an announcement of the material or the host’s questions from the studio, and the reporter’s coverage from the event location. Even though it is a direct coverage, it is usually staged to a large extent (given scenery, plane, framing, sound effects, lighting, sharpness, colours, etc.). In the foreground, there is usually a reporter, who gives an account directly from the location of the event. A live coverage without the reporter character would be pointless, as the whole point of relating from the location is to get the “look, our man is already there, right on the spot” effect. Its purpose is thus to make the message more authentic. This is what distinguishes this kind of relation from other forms of journalistic utterance, such as news or report, which by the very fact of being edited, lose some of their directness and do not have the same significance as a hot, live coverage.

### **Background and aims of research**

The review of the research on perception and understanding of audio-visual coverage reveals that researchers are only slightly interested in the influence of news tickers on how the other elements of the message are watched and remembered. There are only very few papers

concerning the understanding of audio-visual message as news containing “scrolled text”<sup>4</sup>, or how various image elements displayed on screen influence the way it is being watched<sup>5</sup>.

Although news programmes belong to the fields of interest of psychology, media studies, and linguistics (they have existed for several decades now, gradually superseding the press as the main source of knowledge about the world)<sup>6</sup>, live coverages still seem to lie outside the area of scientific reflection. Yet the ticker with information displayed on it is an important factor which can influence the reception of the message, as well as determine the quantity and character of the information remembered by the viewers. The aim of this paper is to attempt an answer to the question if (and when) viewers direct their gaze to news tickers. In particular, the plan was to study if the audience remembers the messages displayed on the tickers and how the presence of the latter influences the remembering of the remaining elements of the message. Research hypotheses offered the following predictions:

- 1) while watching an unaltered report from the location of an incident, a viewer will direct his gaze mainly at the reporter and images, not at news tickers;
- 2) a viewer watching an unaltered message will answer (correctly) more questions from the questionnaire concerning what he has seen and heard than what he has read;
- 3) if a viewer directs his gaze at news tickers in the unaltered message, it will happen only when the reporter disappears from view;
- 4) a yellow ticker saying “URGENT” will not be watched more frequently than a white one;
- 5) viewers will direct their gaze at the news scrolling vertically in the lower left of the screen less frequently than at the news displayed on horizontally scrolling bars taking most of the screen’s width;
- 6) people watching a fabricated message (without a logo, time, or bars) will remember more correct information from the visual-auditory channel than those watching an unaltered message.

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<sup>4</sup> *Ibidem*, pp. 67–86.

<sup>5</sup> S. Josephson, M.E. Holmes, *Clutter or Content? How On-Screen Enhancements Affect How TV Viewers Scan and What They Learn*, in: *Proceedings of Eye Tracking Research & Applications (ETRA)*, New York 2006, pp. 155–162.

<sup>6</sup> M. Griffin, “Looking at TV News: New Strategies for Research”, *Communication* Vol. 13 (1992), No 2, pp. 121–141; F. Chew, “Information needs during viewing of serious and routine news”, *Journal of Broadcasting & Electronic Media* Vol. 36 (1992), No. 4, pp. 453–466.

## **Research method**

### ***Group of participants***

60 students of Adam Mickiewicz University in Poznań participated in the experiment<sup>7</sup>, 30 women and 30 men (sex was a variable taken into consideration in the research); there were 20 participants from the Faculty of Modern Languages and Literatures and 40 from the Faculty of Social Sciences, with incomplete or complete higher education, aged 20–25. All participants had normal vision, or corrected to normal. The study was carried out individually with each participant. All students performed the experimental task during their class hours, having signed a written agreement to take part in the research, and were rewarded for their participation with a small gift each.

### ***Research material***

The research material consists of a multimodal news report, such as a television report from the event location, called live coverage, in two forms, unaltered and fabricated.

An “emotionally neutral” message was chosen, which did not touch any “sensational subjects”, such as conflicts in the government, murders, accidents, or other universally controversial subjects. This particular message was also chosen because it was believed that the participants should not know it beforehand.

The report which was chosen was initially aired during holidays. It concerned cows illegally grazing on a pasture. The duration of the whole live coverage, including the host’s question, was 2 minutes 15 seconds. It came from the TVN24 station, and was aired on July 14, 2011 at 12.45 a.m., from Wrocław. The reporter was visible for a total of 46.6% of the whole time of the coverage.

This coverage was appropriately fabricated. All news tickers (one scrolling vertically and two horizontally), recording time, and logo were blackened. The coverage was shown in this form to the second group of participants. The authors avoided preparing a fictitious coverage on purpose, however, such as including a false logo, changing colours of the tickers, etc., as it might have been counterproductive, directing viewer’s gazes to these fictitious

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<sup>7</sup> The study was performed at the Activity and Cognition Research Lab of the Faculty of Social Sciences of Adam Mickiewicz University (ul. Szamarzewskiego 89, Poznań, building E/6a), by the courtesy of the Director of the Lab, dr hab. Grzegorz Króliczak. The authors would also like to express their gratitude to Piotr Urbaniak for his help in statistical computations, and to the activists of the SKUTEK research circle at the Faculty of Social Studies.

elements (in particular those viewers who follow news services every day, know the information channels in Poland, and can tell them by the colour of the tickers, logo, etc.).

### ***Equipment***

An iView X™ RED (Remote Eye Tracking Device) by SensoMotoric Instruments was used in the experiment. The whole measuring device fits in an aesthetic box placed below the monitor on which the stimuli are presented. This device uses non-invasion methods of measuring eyeball movements with a sensor tracking the position of the pupil and corneal reflection. The measurements are taken at 60 Hz frequency. Therefore, the position of the eye relative to the image on the screen is measured every ~16.7 ms. The eye tracker allows all respondents to participate in the study, regardless of age, wearing glasses or contact lenses. Each participant was sat in front of a 19" LCD monitor, below which the eye trackers were hidden as two independent stereo speakers. The participants could also use a keyboard and a mouse.

### ***Questionnaire***

The aim of the questionnaire was to assess the level of remembering of the information shown in the coverage. A computerised questionnaire with closed questions was chosen.

The questionnaire consisted of three parts. The questions in the first part concerned the elements of the coverage, i.e., what the reporter said, what the footage showed, and the information displayed on the tickers (in the case of the group watching the unaltered material). In the second part, there were questions about the preferred source of information (TV, radio, the Internet, press) and the choice of a TV station. The third part contained questions about the sex and right- or left-handedness of the participant.

### **Layout of the experiment and research procedure**

The experiment was composed of three following parts:

- the preliminary part: the instructions were read to the participant, who then signed the written agreement to participate in the study, and the calibration took place. The experimenter left the room for the duration of the examination. The progress of the experiment was constantly observed from a research room behind a two-way mirror;
- the display of the short news report: the participant started watching the coverage at the time of his choice by pressing the space bar on the keyboard. He was shown either the unaltered or

fabricated coverage, while the places where his eyes fixated were registered by the eye tracker;

– the questionnaire: directly after the exposition to the stimulus, there was a prompt on screen to complete the questionnaire. The participants were not informed about the questionnaire beforehand, so that they could watch the coverage in the most “natural” possible way, as they do at home. The participants were tasked with responding immediately to the questions from the questionnaire.

The examination was performed individually with each participant. The mean time of the experiment was 7 minutes for each participant.

### **Results of the research**

This paper presents the results of the research, oriented to diagnose the influence of news tickers on remembering the remaining elements of the coverage, which the authors found most interesting. The time of fixation of the sight on the chosen areas of interest was used as a marker of directing gaze. Fixation is defined as focusing one’s gaze on a given element. The basic technique of the collective analysis of the results of the examination of multiple subjects consists of defining and marking significant portions of a visual stimulus, which are the Area of Interest (AOI) for the researchers. The interest in a given area results from the research assumptions. They enable to separate, from a multitude of gazes, the gazes which land in a defined area of the stimulus, such as the reporter’s face, news tickers, station logo, etc. The areas of interest were indicated by outlining them in the BeGaze analysis software. After all appropriate areas were indicated, gazes which corresponded to the defined AOIs were selected from the whole set. Results obtained in this way allow for a thorough quantitative analysis of gazes and application of statistical measures. 17 areas were selected for the studied stimulus (see Table 1). The measure, from which the conclusions about directing one’s gaze at given AOIs are going to be drawn, is the average total fixation time (ATFT), or the total of all fixation times of all participants in a given AOI divided by the number of participants. ATFT was computed for each AOI using the following formula:

$$\frac{(TFT_{P_1 \text{ in AOI}} + TFT_{P_2 \text{ in AOI}} + \dots + TFT_{P_n \text{ in AOI}})}{n}$$

TFToP – Total Fixation Time of Participant

n – number of participants

Table 1. Areas of interest defined by the researchers

AOI Name	AOI Description
Host's face	The face of the journalist hosting the news service in the studio, who announces the report from the spot.
Studio	The background behind the sitting host of the service; there are TV screens visible, editors' desks with computers and people bustling about; during the announcement of the report from the spot, two people pass behind the host.
Reporter's face	The face of the reporter covering the event.
Reporter's body	Reporter's body from the knees or waist up (the reporter is seen mainly in American or medium shot); there are moments it is not synchronised with his face (when the reporter disappears, his face is still visible for a moment, and vice versa).
Reporter's left hand	Distinguished by the hand gestures. The right hand has not been tagged because it holds the microphone; not all gestures made with the hand are visible (especially with the hand holding the microphone) because of framing and news tickers covering it.
Cows	Due to framing (usually seen in long shot), it is not possible to tell their number.
Birds	Seen only in long or extreme long shot. Number unknown.
Yellow ticker	Scrolls vertically at the bottom of the screen, through its whole width. Messages with the <i>PILNE</i> [urgent] sign are displayed in black letters over yellow background. In use since March 2, 2009. Not always present. If so, displayed above the <i>white ticker</i> .
White ticker	Scrolls vertically at the bottom of the screen, through its whole width. Messages from the country and the world, in blue font, are scrolled over white background. If needed, a <i>yellow ticker</i> with the <i>PILNE</i> [urgent] sign is shown above it.
Timer	Placed at the top of the screen, shows the recording time of the material at the studio.
Hour bar	The upper part of the ticker scrolling vertically in the bottom left corner of the screen; the airing hours of programmes or interviews with guests are displayed in blue fonts here over white or light blue background. (Names of programmes and guests are displayed below, see <i>programme bar</i> .)
Programme bar	The lower part of the ticker scrolling vertically in the bottom left corner of the screen; announcements of programmes and guests are displayed here in white font over blue background (the hours are shown above, see <i>hour bar</i> ).
Logo	Part of the second vertical ticker, the logo of the TVN24 station from where the research material was acquired. Placed between the vertically scrolling ticker (composed of two elements) and the horizontally scrolling tickers (white and yellow). The hour of the report is shown below, with the word <i>ŚWIAT</i> [world] or <i>POLSKA</i> [Poland] under it.
Hour	Part of the second vertical ticker, the time of the coverage (12.45–12.47); shown below the logo of the station, above the <i>ŚWIAT</i> [world] sign.
World/Poland	Part of the second vertical ticker; text in black font. Shown below the <i>hour</i> at the same level as the information displayed on the horizontal ticker, depending on whether the information concerns the country or the world abroad.
Live	The caption <i>na żywo</i> [live] is displayed in black font over yellow background in the upper right corner of the screen, over the caption <i>Wrocław</i> .
Wrocław	A caption in black font over white background, displayed in the upper right



AOI Name	AOI Description
	corner, below the caption <i>na żywo</i> [live].

■ Hypothesis 1. was confirmed. Viewers watching the coverage directed their gaze at the reporter (mainly at his face) and the image material decidedly longer (68,808 ms, i.e., 50.9% of the whole duration of the coverage) than at the tickers scrolling horizontally (white and yellow), vertically, and captions *na żywo* and *Wrocław* (23,488 ms, that is, 17.3% of the whole coverage duration) ( $p < 0.001$ ).

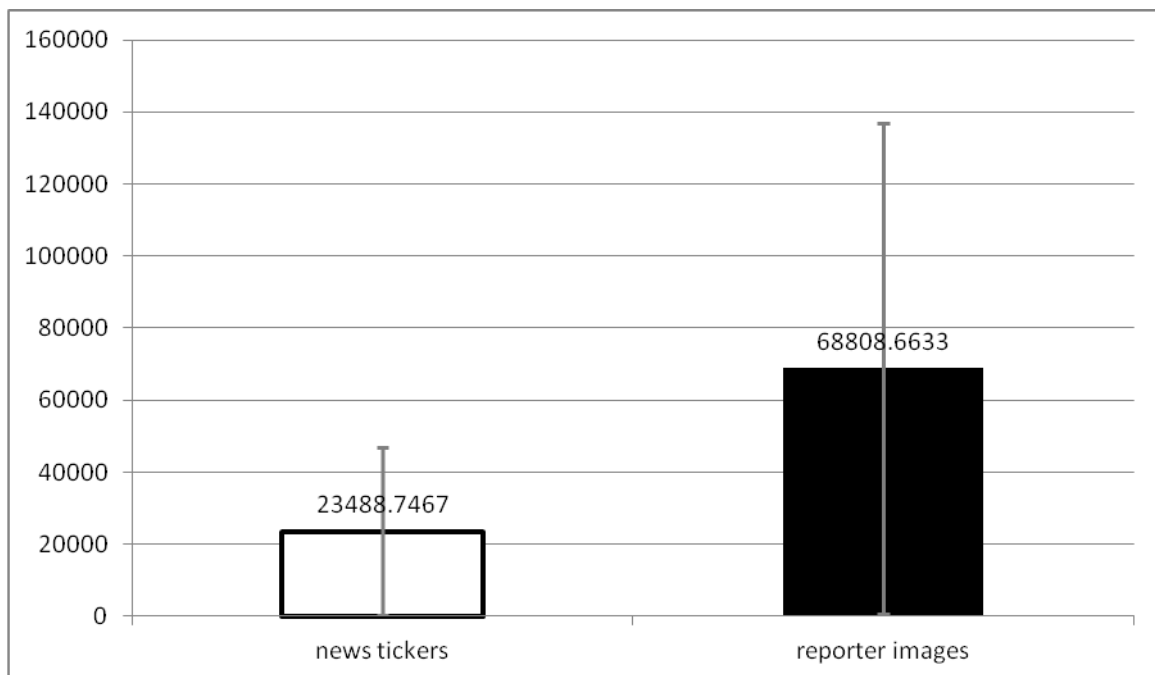


Chart 1. Comparison of ATFT (in ms) for the news\_tickers and reporter\_images variables with standard deviations ( $p < 0.001$ ). As the distribution of the averages was normal, the significance of differences between these averages was measured using Student's  $t$ -test.

(reporter\_images equals reporter\_face + reporter\_body + left\_hand + cows + birds + studio + host\_face; news\_tickers is a sum of the following AOIs: yellow\_ticker + white\_ticker + hour\_bar + programme\_bar + hour\_aired + logo + world + live + Wrocław. Horizontal and vertical tickers were displayed continuously, from the beginning of the announcement of the coverage from the event location, through its whole duration. The captions “Na żywo” [live] and “Wrocław” appeared, subsequently, at 19 and 29 seconds of the report, respectively, and disappeared at 2 minutes 6 seconds.)

■ Hypothesis 2. was not confirmed. The examination of the questionnaire results did not reveal that the respondents gave more correct answers to the questions about the information conveyed via visual and auditory channels, and less correct answers to the questions about the information in the text displayed on tickers.

■ Hypothesis 3. was not confirmed. The comparison has shown that ATFTs on both white and yellow ticker are longer when the reporter is within the frame (664 ms and 739 ms for the white and the yellow ticker respectively). These differences, however, are not statistically significant ( $p > 0.05$ ). Since the length of the shots when the reporter was within the frame and out of the frame was not the same (63 s and 46 s, respectively) a direct comparison of fixation times was not possible. To facilitate understanding, Chart 2 shows the times of fixation on individual areas as percentage of the time the reporter stays in and out of the frame.

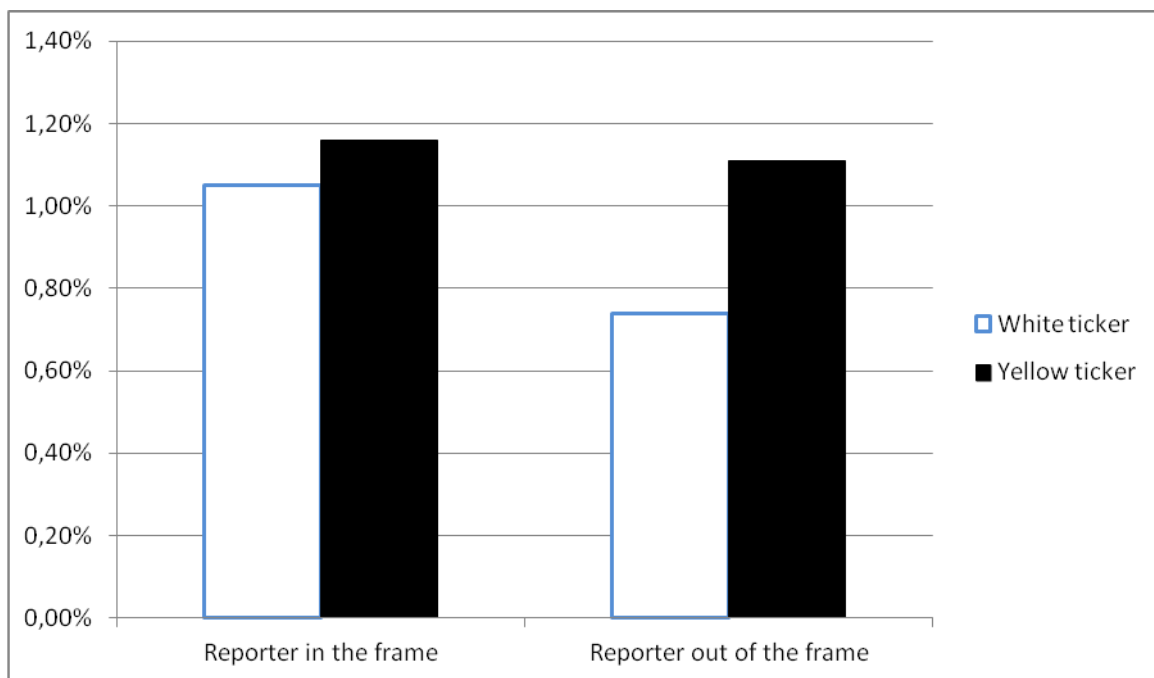


Chart 2. Comparison of ATFT (in ms) for the white ticker and yellow ticker areas when reporter is in the frame and out of the frame ( $p > 0.05$ ). As the distribution of the averages was normal, the significance of differences and averages was measured using Student's  $t$ -test.

■ Hypothesis 4., about the relationship between the white and the yellow ticker, was not confirmed. There is no statistically significant difference between the frequency of directing gaze at the yellow ticker marked *PILNY* [urgent] and the standard white ticker (11,172 ms and 6,292 ms, respectively;  $p > 0.05$ ).

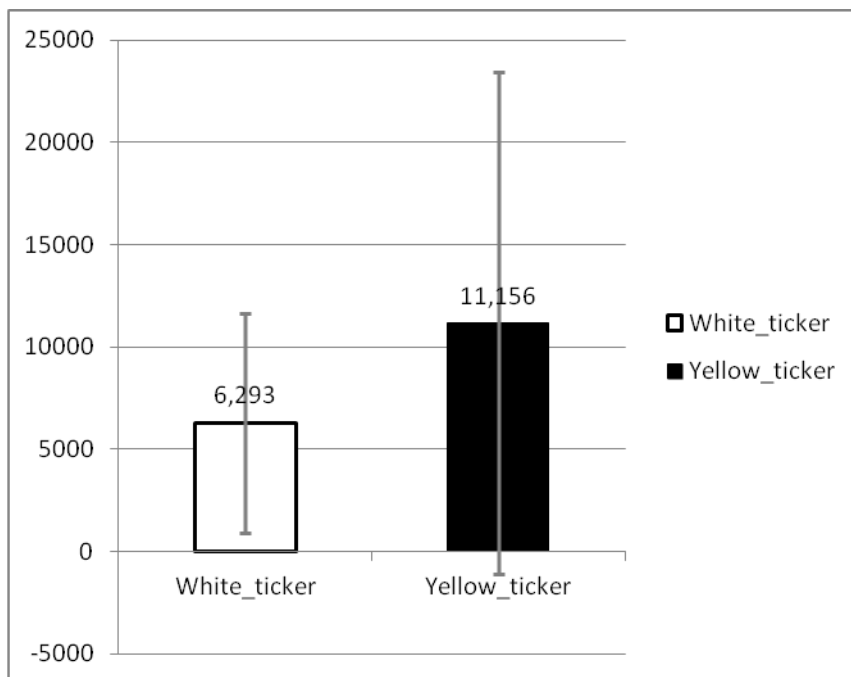


Chart 3. Comparison of ATFT (in ms) of the white\_ticker and yellow\_ticker variables with standard deviations ( $p > 0.05$ ). As the averages differed from normal distribution, the significance of differences was measured using Mann-Whitney  $U$  test.

■ Hypothesis 5. was also confirmed in this study. Viewers' gazes were directed at the horizontally scrolling tickers more often than at the vertical ticker. (The vertical ticker is composed of programme\_bar + hour\_bar; the horizontal ticker consists of yellow\_ticker + white\_ticker.)

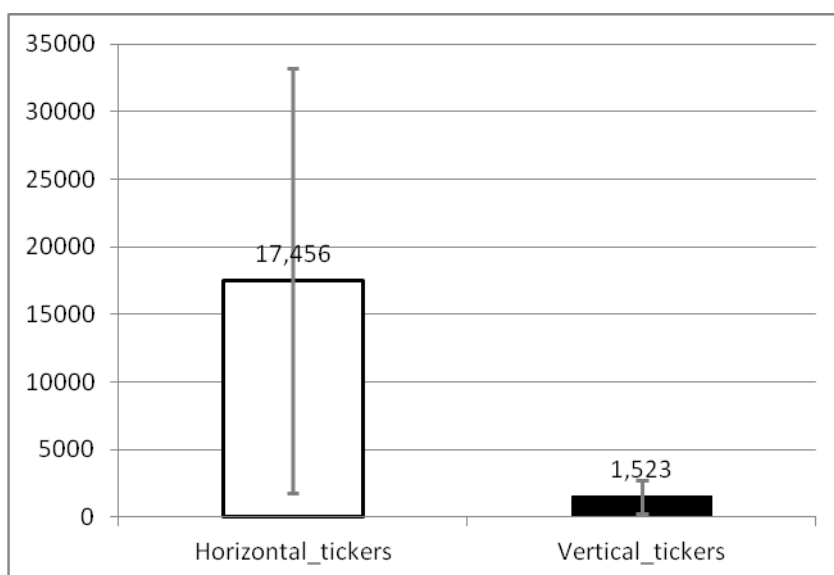


Chart 4. Comparison of ATFT of the horizontal and vertical tickers with standard deviations ( $p < 0.001$ ). The significance of differences was measured using Student's  $t$ -test.

■ Hypothesis 6. Was not confirmed. Viewers who watched the fabricated coverage did not remember more correct information from the visual and auditory channels than those who watched the unaltered coverage. The search for relationships between frequency and time of gaze fixation in individual areas on one hand and the given answers on the other did not reveal any significant correlations.

### **Discussion of the results**

The results obtained from the experiment allow some inference about the influence of news tickers on the remembering by viewers of the remaining elements of the television coverage. For many people watching TV transmissions, including live coverages, is an everyday activity. In the studies on media coverage conducted so far, including those in which eye trackers were used, the participants were instructed what to focus on during watching the messages with news tickers<sup>8</sup>. The only study known to the authors without any explicit instructions on what the viewers should focus was the study concerning watching a football match<sup>9</sup>. In this study, no clues as to how the relation was to be watched were given. The novelty was that the participants were not informed about the questionnaire beforehand, in order to make the research situation more similar to the natural conditions of watching TV.

#### ***Face as a strong attractor of gazes***

The predictions that viewers would direct their gaze mainly at the reporter present at the event location and the image material, rather than at the news tickers while watching a live coverage were confirmed. The element which attracted the greatest number of gazes was the reporter's face. The cause of such behaviour may be sought in the fact that human face is a strong attractor of gazes, "being the chief seat of expression and the source of the voice"<sup>10</sup>. Beyond doubt, face is one of the most expressive parts of the body, since it mostly expresses feelings and emotions. It is on the face that rapidly changing emotions and reactions to the interlocutor's words and behaviour are reflected. The way of speaking, as well as the set of mouth and eyebrows during the conversation, face and eye expression, they all reveal the

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<sup>8</sup> P. Francuz, A. Trojanowska-Bis, *Rozumienie przekazu...*, pp. 74–75.

<sup>9</sup> M. Smuc, E. Mayr, F. Windhager. *The Game Lies in the Eye of the Beholder. The Influence of Expertise on Watching Soccer*, in *Proceedings of the 32nd Annual Conference of the Cognitive Science Society* Austin, TX 2010, pp. 1631–1636.

<sup>10</sup> C. Darwin, *The expression of the emotions in man and animal*, New York 1899, [www.gutenberg.org/files/1227/1227-h/1227-h.htm](http://www.gutenberg.org/files/1227/1227-h/1227-h.htm) [accessed: 17.07.2013]; see also: *Idem, O wyrazie uczuć u człowieka i zwierząt* [On the expression of feelings in men and animals], Warszawa 1988, p. 46.

emotions felt by the interlocutor<sup>11</sup>. Additionally, the human brain is better trained in receiving the television coverage in the traditional way, i.e., without additional images, charts, text, etc. This means that viewers are mostly using the visual and auditory channels<sup>12</sup>. On the other hand, directing one's gaze at a particular AOI is not tantamount to focusing one's attention on it or remembering the information it presents<sup>13</sup>. Although viewers directed their gazes at the AOI is related to the reporter and image material, the results of the questionnaire study revealed that they did not remember more correct information conveyed by the visual and auditory channels than the information displayed on the tickers. Therefore, the hypothesis that viewers should remember more of what they see or hear than what they read was not confirmed. It is characteristic that in the studied live coverage an audio/video redundancy can be seen, understood as a semantic similarity between the visual and auditory channels<sup>14</sup>. The information displayed on the tickers do not relate to the coverage being shown. Some studies indicate that television information is remembered thanks to the audio/video redundancy<sup>15</sup>.

### ***Remembering information coming from news services***

It is worth noting that the correctness of answers to the questions in the questionnaire was very low in both groups. The average number of correct answers was only 4.4 in 15 questions. It may be so because the emotionally neutral research material, about the cows grazing illegally on a pasture, did not engage the viewers, since news arousing negative emotions attract more attention than positive news<sup>16</sup>. The viewers, most likely unaware that after watching the presented stimulus they would be asked to answer a dozen or so questions about the coverage, did not try to remember the details. This result may confirm the thesis that viewers remember very little information from news services, regardless of whether they watch a full edition or only a several minutes long sample<sup>17</sup>.

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<sup>11</sup> P. Ekman, W.V. Friesen, "The repertoire of nonverbal behavior: Categories, origins, usage, and coding", *Semiotica* Vol. 1 (1969), No 1, pp. 49–98; A. Kendon, *How gestures become like words*, in: *Cross-cultural Perspectives in Nonverbal Communication*, ed. by F. Poyatos, Toronto 1988, pp. 131–141; M. Knapp, *Nonverbal Communication in Human Interaction*, New York 1978, pp. 33–36.

<sup>12</sup> P. Francuz, A. Trojanowska-Bis, *Rozumienie przekazu...*, p. 78.

<sup>13</sup> A. Treisman, "How the development of attention determines what we see", *Visual Cognition* Vol. 14 (2006), pp. 411–443.

<sup>14</sup> "Negative and positive television messages: Effects of message type and message context on attention and memory", auth. B. Reeves et al., *American Behavioral Scientist* Vol. 34 (1989), pp. 679–694.

<sup>15</sup> A. Lang, "Defining audio/video redundancy from a limited capacity information processing perspective", *Communication Research* Vol. 22 (1995), No. 1, pp. 86–115.

<sup>16</sup> B. Reeves, J.E. Newhagen, "Effects on compelling negative television news images on memory", *Journal of Communication* Vol. 42 (1992), No. 2, pp. 25–41.

<sup>17</sup> D.A. Graber, "Seeing is remembering. How visuals contribute to learning from television news", *Journal of Communication* Vol. 40 (1990), No. 3, pp. 134–155.

### *News tickers*

The hypothesis that if viewers direct their gazes at news tickers, they do it mainly when the reporter disappears off-screen, was not confirmed either. The results have shown that the participants did not look more often at the tickers when the reporter moved out of the frame than when he was in the frame. The cause here may be that when the reporter left the frame, he did so to show the subject of the coverage there, which attracted the viewer's gaze. It can be assumed that the issue explored by the reporter, and highlighted by the quick zoom of the camera on the subject of the report, is as strong an attractor of gazes as the reporter's face when he is in the frame.

It is worth noting that the sex and right- and left-handedness variables did not introduce any statistically significant distinctions in the group.

The remaining hypotheses related to news tickers were confirmed. In spite of the *URGENT* caption, gazes were not directed at the yellow ticker than at the standard, white one. It should be stressed that not all stations use two horizontal tickers in the bottom of the screen. On TVN24, from which the footage used in the experiment was taken, a double ticker has been in use since September 1, 2008. The standard and the yellow tickers are used to display "ordinary" and "urgent" information, respectively (it is the editor of the station who decides what is "ordinary" and what is "urgent"). The lower ticker is scrolled faster than the upper one. During the transmission from the event location, the only information displayed on the yellow ticker was about the explosion in the Polish mint, in which one person was injured. On the white ticker, during the 2 minutes 15 seconds of the report, 10 different pieces of information were displayed, 3 from the world and 7 from the country. Moreover, in spite of the vertical ticker being present (at the time of the transmission), on which only the information about the scheduling of programmes on TVN24 was shown, the viewers directed their gazes mostly at the horizontal tickers (white and yellow). Some viewers were not aware of the presence of the vertical ticker on screen because, perhaps, it covers less surface of the screen than the horizontal tickers, displayed on the whole length of the screen. While considering the importance of the obtained results, one should note that although viewers directed their gaze at the tickers (TAFT equalled 6,292 ms and 11,172 ms for the yellow and the white ticker respectively), it was not reflected in the correct answers to the questions about the colour of the ticker and the information displayed on it.

### ***Banner blindness***

The analysis of the results of the experiment, however, offers one more possible explanation of the observed effect, that is, not reading the information shown on the tickers, that should be taken with caution. The viewers' tendency to avoid the elements which the broadcaster wants to underline, highlight in a special colour or with the *URGENT* caption, can be compared to a phenomenon, observed as early as in 1990s among web users, called *Banner blindness*<sup>18</sup>. In the case of the Internet, the www website users developed a strategy which allowed them to "relieve" their cognitive systems by ignoring the elements highlighted by the creator of the page (very often equated with advertising content) and focusing on what they consider the content of the message. The capabilities of the human cognitive system to process information coming from television news are not unlimited<sup>19</sup>. In the studied group, the preferred source for obtaining information was the Internet. However, remembering a greater amount of information from the message does not allow to differentiate the participants based on whether TV was indicated as the primary information source. Since 90% of the studied sample chose the Internet as their main source of information, it is justified to assume that they could transfer the patterns for interaction with information, which they learned while using the Internet, to other media.

### **Summary and further research possibilities**

The hypothesis was not confirmed that viewers watching the fabricated version of the coverage would attain a better score in the questionnaire on remembering the information from the visual-auditory channel than those who watched the unaltered coverage. It is possible to state, therefore, that news tickers have no significant influence on remembering the remaining elements of the message and that they are not the elements of the media message which the viewers want to see the most.

The results of the research presented in this work should not, however, be considered a complete solution to the problems presented in the introduction. Rather, it is an attempt to find answers. The experiment was also limited by the conditions of the laboratory where it was conducted: the coverage was displayed on a computer screen which had to be watched from a short distance, about 60–70 cm. Another limitation was imposed by the equipment allowing to

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<sup>18</sup> J.P. Benway, "Banner blindness: The irony of attention grabbing on the World Wide Web", *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* Vol. 42 (1998), No. 5, pp. 463–467.

<sup>19</sup> A. Lang, "The limited capacity model of mediated message processing", *Journal of Communication* Vol. 50 (2000), No. 1, pp. 46–70.

measure the direction where the gaze is directed, which is not the same as directing attention<sup>20</sup>.

The conclusions drawn from the conducted experiment may be the first step in the attempt to answer the question if the viewers direct their gazes at news tickers and what is the influence of the tickers on remembering the remaining elements of the message. They may also become the starting point for future research into the effectiveness and efficiency of visual communication of the elements of audio-visual coverage. It might be interesting to repeat the experiment in more ecological conditions, i.e., in a laboratory which simulates a living room at home, where the participants sits on a sofa or in an armchair, in front of a TV set and not a monitor, and at any time. The next step should also include demographics distinguished by age to find if the strategies of watching a television message as live coverage do not differ significantly between persons in different age ranges. It would enable to evaluate if a source of information, which is very popular among the younger generation and not so popular among the older people, such as the Internet, can significantly influence the way in which the television message is watched by these two demographics. The observed tendencies in the viewers' perception of the television coverage may be of practical value. News service engineers, producers, and reporters may be able to introduce some possible modifications in the formula of the presentation so far, by changing the arrangement of the frame, i.e., modifying the layout of some elements, emphasizing some and removing others, in order to optimise the message for the perception capabilities of viewers.

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<sup>20</sup> A. Treisman, *How the development...*, pp. 411–443.