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Research Article / Araştırma Makalesi

The optimal time-lag for media's third-level agenda-setting effect

Medyanın üçüncü aşama gündem belirleme etkisi için en uygun zaman aralığı

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Abstract

Third-level (or network) agenda-setting research investigates the similarity between the links of thought that occur about issues or people in individuals' minds and their links in media content. One of the most important questions in this area of research involves the time that is required for the level of importance of an issue on the media agenda to optimally determine the level of importance of that issue on the public agenda. This study examines eight issues that stand out on the agenda based on data from Yüksel et al. (2022). The research monitored the three most-watched television main news bulletins (*FOX, Show, ATV*), three newspapers with the highest circulation (*Sözcü, Sabah, Hürriyet*), and the three Internet news sites with the highest reach (*ensonhaber.com, mynet.com.tr, milliyet.com.tr*) between April 1-September 30, 2021 and identified the media agenda network connections through content analysis. Also, the study conducted two separate surveys between July 1-15, 2021 and October 1-15, 2021 among a sample of 2.401 households in 12 provinces representing the population of Türkiye to measure the links in public thought. The findings indicate six weeks to mostly be the time required for the highest similarity to media network connections to occur in the public mind on a specific issue.

Keywords: Agenda setting, third-level agenda setting, optimal time-lag, public opinion, media effects

Öz

Üçüncü Aşama (Ağ) Gündem Belirleme araştırmalarında, bireylerin zihnindeki konu ya da kişiler hakkındaki düşünce bağlantılarıyla medya içeriklerindeki bağlantılar arasındaki benzerlik sorgulanmaktadır. Bu araştırma alanındaki önemli sorulardan biri de bir konunun medya gündemindeki önemlilik düzeyinin o konunun kamu gündemindeki önemlilik düzeyini optimum seviyede belirleyebilmesi için gereken sürenin ne olduğudur. Bu çalışmada Yüksel ve

arkadaşlarının (2022) verilerinden hareketle, gündemde öne çıkan sekiz konu ele alınmıştır. Medya gündemi ağ bağlantıları içerik analiziyle saptanmıştır. Bunun için en fazla izlenen üç televizyon ana haber bülteni (*Fox Ana Haber, Show Ana Haber, ATV Ana Haber*), en yüksek tiraja sahip üç gazete (*Sözcü, Sabah, Hürriyet*) ve yüksek erişime sahip üç internet haber sitesi (*ensonhaber.com, mynet.com.tr, milliyet.com.tr*) 1 Nisan-30 Eylül 2021 tarihleri arasında takip edilmiştir. Ayrıca kamu zihnindeki bağlantıların ölçümü için 1-15 Temmuz 2021 tarihleri arasında ve 1-15 Ekim 2021 tarihleri arasında, Türkiye nüfusunu temsil edecek şekilde 12 İl'de 2.401 kişilik hane örnekleminde iki ayrı anket uygulaması gerçekleştirilmiştir. Bulgular bir konuya ilişkin kamu zihninde medya ağ bağlantılarıyla en yüksek benzerliğin oluşması için gereken sürenin çoğunlukla altı hafta olduğuna işaret etmektedir.

Anahtar kelimeler: Gündem belirleme, üçüncü aşama gündem belirleme, optimum zaman aralığı, kamuoyu, medyanın etkileri

Introduction

What is the optimum time-lag for media's effects on people to be seen? In traditional (first-level) agenda-setting research, many studies are found on the optimal time-lag and time frame (i.e., time interval) for media agenda issues to become significant on the public agenda. Although these studies have found different results, a period of a few weeks or months has been expressed as being able to be sufficient to reach the optimum level of effect. However, these studies were unable to identify a definite interval. Third-level agenda-setting research can be considered relatively new, and no published research has occurred regarding this question. The current study aims to examine the time needed to reach the optimal lag for the third-level of agenda-setting effect and focuses on the similarity between the network connections presented in the media and the network connections in the public's mind regarding prominent issues on the agenda in Türkiye.

Third level agenda-setting research, also known as Network Agenda Setting (NAS), examines the similarity between the thought connections in individuals' minds about an issue or person and the connections in media content (McCombs & Valenzuela, 2021, pp. 74–75). NAS seeks to reveal findings about how the media influences people's thinking in relation to the idea that the networked connections established by the media's presentation of a person or issue are transmitted to individuals' minds. These studies are also defined as a model for the media's effects and in the most general sense involve testing the hypothesis that similarities exist between the issue network connections on the media agenda and the issue network connections in the public mind (Vu et al., 2014, p. 670).

The idea of NAS is based on the memory-connected network model, which argues that people tend to make connections between different sub-themes in order to make sense of social reality (Vargo et al., 2014). Accordingly, the news media connect different themes and sub-themes when presenting an issue and ensure that this connection is formed concurrently in the public mind (Guo et al., 2012, p. 58). The media's coverage of an issue is important not only in terms of how news organizations cover a news issue but also how often related issues are mentioned and connected during the same news broadcast. In this context, NAS argues that the media imposes on the public the degree of the importance regarding issues and attributes that are related to each other. For instance, if the media repeatedly mentions a country's foreign policies and domestic economic issues together, viewers may think a connection exists between these two issues. Therefore, they may come to associate economic problems with foreign policy issues in their minds (Vargo et al., 2014, pp. 4–5).

According to Vu et al. (2014, p. 670), NAS has brought about significant changes in the way people have thought about the impacts of the media until today because traditional agenda-setting research assumes that each issue on the agenda is separately transferred to the public agenda and questions the relationship between the degree of importance of the issues on the agenda. While traditional agenda-setting research has focused on the cognitive level of media impact, second-level agenda-setting research has found the media to also be able to convey to the public the qualitative degree of issues or people and the media's impact on public perception of them to also be measurable in terms of the qualitative degree of issues or people. Although this assessment of issue qualification provides clues that the media can also influence how people think, NAS provides much more than this. According to NAS research, concrete evidence exists that the media has an impact on the public mind by transmitting events, issues, or qualities through simultaneous news segments. This suggests that the media not only informs people regarding what to talk about but also on how to think and that the media influences public opinion in this context (McCombs & Valenzuela, 2021).

The concept of traditional agenda-setting in which the media is able to influence people's mental images of the outside world, as described by Walter Lippmann (1922) in his book *Public Opinion* underpins traditional agenda-setting research, has now transformed into the following question that NAS research studies seek to answer: What picture exists in people's minds? (Guo et al., 2012, p. 56).

Major research

NAS studies are worth mentioning to still be new and few in number. Research in this field was initiated in 2011 in the United States of America under the leadership of Guo and McCombs (2011a). Their study conducted a new type of evaluation using data from Kim and McCombs (2002), and their dataset focused on the characteristics and behavior of candidates in the 2002 elections as perceived by newspapers and the general public in Austin, Texas. Guo and McCombs (2011a) identified 10 attributes to describe the characteristics of political candidates: leadership, experience, competition, credibility, morality, caring about people, communication skills, how proud they are of their ancestry and ethnicity, non-political side, and comments about other politicians. To evaluate the media agenda, they conducted a content analysis on *Austin American-Statesman*, Austin's only local newspaper. To measure the public agenda, they interviewed by telephone 417 adults living in Austin. They separately asked each of the four participants the following question: "What would you say about the candidates (including the name of the candidate) to a friend who lives far away from Austin and does not know any of the candidates participating in the election?" Subsequently, the 10 personal characteristics acquired through the content analysis and survey were scrutinized for their correlations. The aim of the analysis they conducted to test the NAS model was to reveal the relationships between news organizations and candidate characteristics in the minds of the public. 10x10 matrices were prepared, and the frequencies were calculated for one issue mentioned in the same article as other issues. According to the analyses, a high correlation was found between the public agenda network and the media agenda network, thus supporting the model.

Guo and McCombs (2011b) second study was conducted similar to the first one. Unlike the first study, they used a different method for obtaining the data set, as well as changing the set's width. Their new study used questionnaires developed using the mind map method. The results of their study once again supported the validity of the agenda-setting network model. The NAS hypothesis should also be noted to have been supported by various studies, such as those conducted by Guo et al. (2012), Vu et al. (2014), Cheng and Chan (2015), Guo et al. (2015), and McCombs and Valenzuela (2021).

The first comprehensive research in Türkiye to examine the NAS hypothesis was Dingil's (2018) doctoral dissertation, which aimed to test the NAS hypothesis using five different health-related issues (i.e., cancer, obesity, diabetes, hypertension, and HIV/

AIDS) at the level of Aydın Province. In order to achieve this, Dingil applied a content analysis to the contents of 13 mainstream newspapers and five local newspapers over a period of six months (October 2017-March 2018) and also conducted a mind-mapping survey of 400 people. The study found significant similarity to be present between the media content and the map of the public mind for all disease categories. According to the study, popular newspapers have more similarities with the public mind map, with the degree of similarity increasing the more directly individuals are affected by the disease. Dingil (p. 7) explained this situation using Lipmann's statement: When the public cannot directly learn what is going on around them, they get their mind maps about issues indirectly from the media.

Dingin (2019) conducted additional research in Türkiye on news about violence against women. Yüksel and Dingin (2020a) conducted research on news about the country's agenda, with Dingin (2020) also conducting research on economic news. These studies revealed confirmation of the NAS hypothesis. Yüksel and Dingin's (2020b) book *Medya, Kamuoyu ve Siyaset Gündeminde Köşe Kapmaca* was published in Turkish and deals with agenda-setting research from past to present.

Yüksel et al. (2022) project study conducted with the support of the Scientific and Technological Research Council of Türkiye (TÜBİTAK) is one comprehensive research study testing the NAS hypothesis in the world and in Türkiye. The study was later published as a book (Yüksel et al., 2023) and analyzed 13 issues (i.e.), Coronavirus Disease 2019 [COVID-19], violence, education, national security, foreign policy, Eastern Mediterranean issue, the Istanbul Convention, the Istanbul canal, the Spinal Muscular Atrophy [SMA] disorder, justice, economy, migrants, and the environmental pollution) that were prominent on the media and the public agenda. The study conducted an analysis over a period of six months from April 1, 2021 to September 30, 2021 of news media and *Twitter* content, along with two nationwide public opinion surveys conducted during two quarterly periods. The results indicated a significant similarity between the issue network connections on the agenda and the network connections related to the same issues in the public mind. The media was also noted to have different effects on different segments of society in terms of age, gender, education, income level, occupation, geographical location, nature of the issues, and orientation needs of the media. Meanwhile, the current study carries out a more detailed analysis on optimal time-lag using the data from Yüksel et al.'s (2022) research project.

Optimal time-lag

Agenda-setting studies have shown in various ways how the level of salience an issue has on the media agenda affects the level of salience that issue has on the public agenda. However, one important question here is how long it takes for this level of salience to move from the media agenda to the public agenda; namely, how long is required to achieve the effect. In other words, assuming that the media effects are cumulative and long-term, a period of time should be taken into account when analyzing the links between media and public agendas. The question of optimal time-lag also relates to how long this period should be. Therefore, one of the most important variables in agenda-setting research and analyzed in this research is the question of the time lag required for the media's agenda to pass to the public agenda.

Agenda-setting research has defined the time question using such concepts as optimal effect span, optimal time interval, expected time order, length of time, time frame, and time-lag (Dearing & Rogers, 1996; İrvan, 2001; Luo et al., 2018; Yüksel & Dingin, 2020a; McCombs & Valenzuela, 2021). In general, these concepts refer to the period for which the highest measured correlation coefficient is found between the media and public agendas.

While traditional agenda-setting research in the literature has examined the optimum impact interval, this is the first time this issue has been addressed in third-level agenda-setting research. However, the findings regarding traditional agenda-setting studies have indicated different time intervals. Stone and McCombs' (1981) research comparing media and public agendas on different data groups regarding how long is required to set an agenda concluded 2-6 months to be required for an issue to move from the media agenda to the public agenda. Shoemaker et al. (1989) addressed the issue of drugs between 1972-1986 and suggested a period of 3-4 months. Winter and Eyal (1981) asserted the strongest connection between the media and public agendas to have been observed during a period of 4-6 weeks when analyzing the front-page content of the *New York Times* on human rights between 1954-1976. For other examples, Wanta and Hu (1994) suggested a period of 1-2 weeks for network news channels, 3-4 weeks for newspapers, and 8 weeks for national news magazines, while McCombs et al. (1995) stated the time required for an issue on the media agenda to influence the public agenda to generally be between 5-7 weeks. However, the nature of the issues affects this situation, and while some established issues can easily enter the public

agenda, new issues require more intensive efforts to enter the public agenda. Severin and Tankard (1994, p. 388) stated that the conclusion of the debates on time-lag shows different issues to require different amounts of time to "generate sufficient noise" to attract public attention.

Luo et al.'s (2018, p. 154) meta-analysis of agenda-setting research conducted from 1972-2015 found that a long-term framework is necessary for media coverage to have the most impact on public opinion. However, researchers are also said to greatly disagree on how to define the optimal effect range. According to Luo et al. (p. 154), empirical studies generally use a range of time periods from a few days to several months; therefore, the agenda-setting effect varies depending on the circumstances of each study. Their meta-analysis found variance in the time-lag to not significantly increase or decrease agenda-setting effects (p. 165). Although the findings revealed in these types of studies generally indicate a period of 4-6 weeks, similar to the study of Winter and Eyal (1981), research findings are found to vary widely, from a few days to a few weeks or even a few months. Meanwhile, the case that "the longer the duration, the better" (Luo et al., 2018, p. 155) should be emphasized to not always hold true, because while long-term media coverage often reinforces the agenda of public opinion, the agenda-setting effect on some issues is also related to chronic accessibility in public opinion. Thus, a temporary rise or fall in media attention may have little effect on public perception.

In summary, one could argue that the nature of the issue, the presence of other competing issues on the agenda, the way an issue is handled, the ups and downs of the agenda, and other factors are able to affect the duration of the issue and the media's agenda-setting power.

Aim and methodology

This research aims to confidently determine the optimum time-lag within the framework of the third level of agenda-setting theory based on the data from Yüksel et al.'s (2022) research project supported by TÜBİTAK. The current study uses the traditional method of content analysis to reveal the network connections regarding issues on the media agenda. For this purpose, the study monitored the data regarding the three most watched television main news bulletins (*FOX*, *Show*, and *ATV*), three newspapers with the highest circulation (*Sözcü*, *Sabah*, and *Hürriyet*), and three Internet news sites with

the highest reach (*ensonhaber.com, mynet.com.tr, and milliyet.com.tr*) for six months between April 1-September 30, 2021. The research project had also tracked *Twitter* agendas but found the effect of NAS to be generally weak. Therefore, the current article does not use *Twitter* agendas with respect to the question of optimal time-lag.

The issues to be followed on the media agenda were selected from the monthly news research findings of *Medya Takip Merkezi* (MTM [Media Monitoring Center]) and from among the prominent issues on the agenda. The study also conducted a public opinion survey through face-to-face interviews with 214 people in Ankara at the beginning of March 2021 to determine the prominent issues on the public agenda. Accordingly, the following issues have been determined: justice, COVID-19, foreign policy, education, economy, immigrants, the Istanbul Convention, the Istanbul canal, violence, and national security. In addition, the research also includes the issues of the Eastern Mediterranean issue and SMA, with the research team anticipating that the amount of news on these issues may change, taking into account how rapidly the agenda changes.

The content analysis evaluates the network connections related to each issue in terms of whether the sub-themes related to an issue appeared together in a news story. The researchers carried out the coding independently, with intercoder agreement being performed using the spreadsheet application Google Sheets. They then extracted the data and applied Cohen's kappa test using the program Statistical Package for the Social Sciences (SPSS) (Nuendorf, 2002, pp. 141–163). Accordingly, the values obtained reveal compliance at the significant and strong levels ($0.61 > к > 0.80$).

Within the 6-month period during which media content was monitored, the research measured connections in the public mind on a quarterly basis. The survey was conducted twice, once at the end of Phase 1 (April 1- June 30, 2021) between July 1-15, 2021 and again at the end of Phase 2 (July 1-September 30, 2021) between October 1-15, 2021. The surveys were conducted over a sample of 2,401 households in 12 provinces in accordance with the Turkish Nomenclature of Statistical Territorial Units 1 (NUTS1), representing the adult population of Türkiye.

form used in the research November 25, 2020. The study ensured that all participants for both surveys read, agreed to, and signed the voluntary participation form and completed the data collection process.

The survey form used in this third-level agenda-setting research presented the participants with five separate boxes and asked such open-ended questions as 'What comes to your mind when issue X is mentioned? Please write one word or concept in each box below. Then, connect the boxes by drawing a line between at least two boxes you think are related to each other to show the relationship.' The participants were then asked to draw lines representing the relationships between the words they had written in the boxes. This revealed the links between associations about an issue in participant's minds.

The research used the mechanism designed weekly for the news media agenda to evaluate the optimal time-lag at which the issue network connections on the media and public agendas were the most closely related (i.e., the time required for an issue to reach the highest level of similarity on both the media and public agendas). Accordingly, the study evaluated the content analysis data for the news media separately for a period of three months over a total of 13 separate weeks in weekly increments (e.g., Week 1 = 7 days of content analysis data for the week before the start date of the survey); Week 2 = 14 days of content analysis data before the start date of the survey; Week 3 = 21 days of content analysis data before the start date of the survey, and so on). It should be emphasized that the term 'Week 1' does not refer to the first week of the content analysis or the first week of the research. Rather, it denotes the first week prior to the survey being conducted on Phase 1 and Phase 2. Consequently, the effect of the time factor was analyzed by moving backwards from the period when the questionnaire was applied. Therefore, the data for Week 13 involve the content analysis data covering the entire three-month period prior to the survey. The study has evaluated a total of 26 weeks of data in order to compare the data of two 3-month periods (i.e., Phase 1 = April 1-June 30, 2021; Phase 2 = July 1-September 30, 2021).

As in previous NAS studies, the research has compared the media and public opinion datasets using the Quadratic Assignment Procedure (QAP) correlation test. The previous studies accepted similarity as being significant (high) when the QAP correlation was between 70% and 100% ($0.70 < r < 1.00$, $p < 0.05$; Guo & McCombs, 2011a; Guo & McCombs, 2011b; Vargo et al., 2014; Vu et al., 2014; Cheng & Chan, 2015). In this context,

the current study interprets a QAP correlation of 0.00 < *r* < 0.49 as no similarity, of 0.50 < *r* < 0.69 as low similarity, and of 0.70 < *r* < 1.00 as high (significant) similarity.

Findings

Firstly, the research found that no significant similarity could be established between media and public network connections in terms of the NAS hypothesis for the issues of justice (*r* = 0.161), economy (*r* = 0.084), or immigrants (*r* = 0.005) over the total 6-month period that was examined. Although a similarity was found regarding SMA (*r* = 0.841), evaluating its optimal time-lag period was not considered meaningful due to the small number of weekly news articles. In this context, the evaluation for optimal time-lag period was carried out over eight issues that had similar network connections in the media and public agendas, thus finding validity for the NAS hypothesis.

The issue of national security

According to the correlation values obtained with the 13-week regulation regarding the relationship between the network connections in the public mind and the network connections in the news media in the first three-month period (Phase 1) regarding the issue of national security, the highest level of relationship during the period was seen with the media content in Week 6 (*r* = 0.858). In the second trimester (Phase 2), the highest level of similarity was again found with Week 6 of media content (*r* = 0.881). In fact, this level can be said to be the peak over the whole graph, as shown in Figure 1.
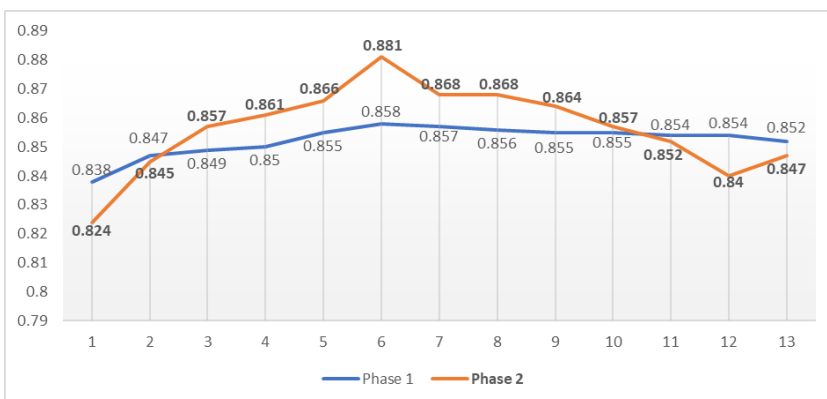
Figure 1. Weekly correlation values on the issue of national security.

As a result, the findings from the analysis conducted during two separate three-month periods clearly reveal the highest level of similarity to have been achieved in Week 6 of media content in both periods.

The issue of foreign policy

Although the findings regarding foreign policy in the first three months (Phase 1) generally indicate a high level of similarity, the highest value was reached in Week 6 (r = 0.83) and Week 7 (r = 0.83).
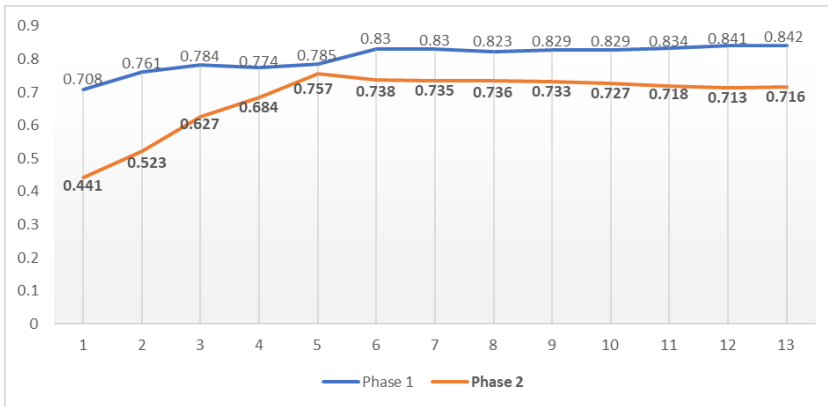

Figure 2. Weekly correlation values on foreign policy issue.

In the second three-month period (Phase 2), the highest correlation value was observed in Week 5 (r = 0.757). Although a high level of similarity was still found in Week 6 (r > 0.7), a slight decrease was observed in the correlation value (r = 0.738). High levels of similarity evidently persist in the subsequent weeks.

The issue of COVID-19

Regarding the issue of COVID-19, the correlation obtained from weekly processing of public and news media network links during the first three months shows a high similarity (r > 0.7) for all the weeks that were examined. As shown in Figure 3, the similarity level can be concluded to have exceeded a significant threshold (r > 0.75) Weeks 3-13, with Weeks 12 and 13 exhibiting the highest levels of similarity.
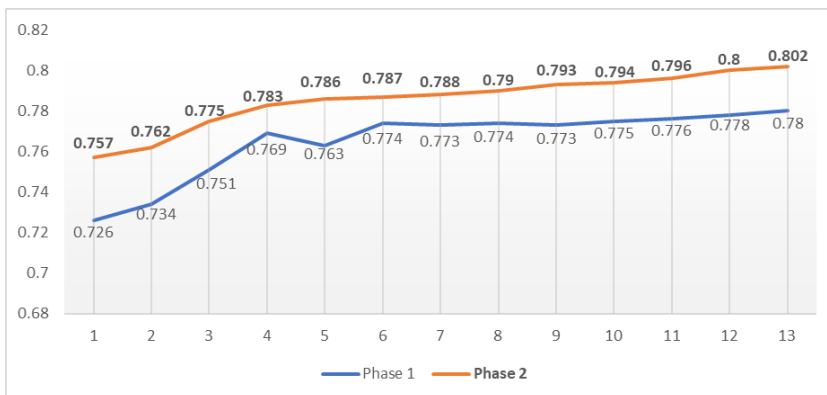
Figure 3. Weekly correlation values regarding the issue of COVID-19.

As seen in Figure 3, the correlation value is quite high for all weeks in Phase 2 for the issue of COVID-19 ($r > 0.75$). In fact, the highest level was reached in the last two weeks of the period ($r > 0.8$). While the findings suggest a high degree of similarity between media and public network connections during all weeks, importance is had in noting that the media effects indicate an increasingly cumulative similarity over time.

The issue of violence

The data presented in Figure 4 for the first three months on the issue of violence indicate a moderate level of similarity ($r > 0.5$) in the weeks preceding the survey. However, the similarity is worth noting to have increased to a high level ($r = 0.709$) from Week 5 onwards, continuing to increase in for Weeks 6-13 with an accumulative effect.
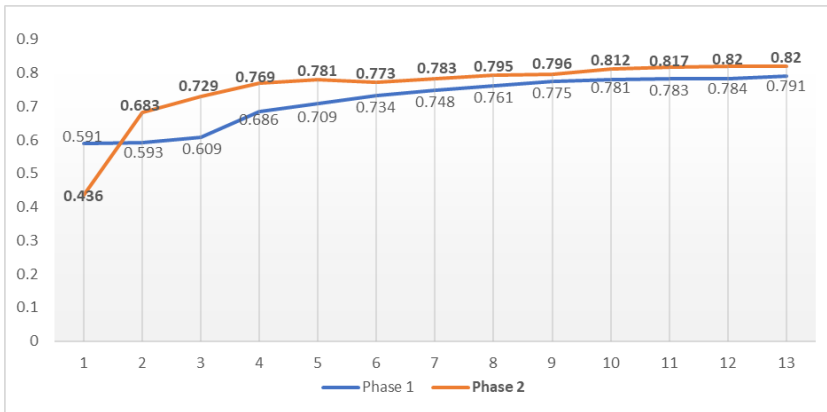
Figure 4. Weekly correlation values for the issue of violence.

In the second trimester, a high level of similarity ($r = 0.729$) with media content and its impact emerged during Week 3. Again, a higher correlation is understood to have been achieved with the contents from the previous weeks, with the effect being accumulative.

The issue of education

Correlation values for the issue of education issue in the first three months indicate a moderate similarity with the media content in Week 3 ($r = 0.524$). Although the correlation values increased partially in the later weeks, they remained at a medium level. The highest value was reached in Week 13 at the end of the Phase 1 ($r = 0.606$).
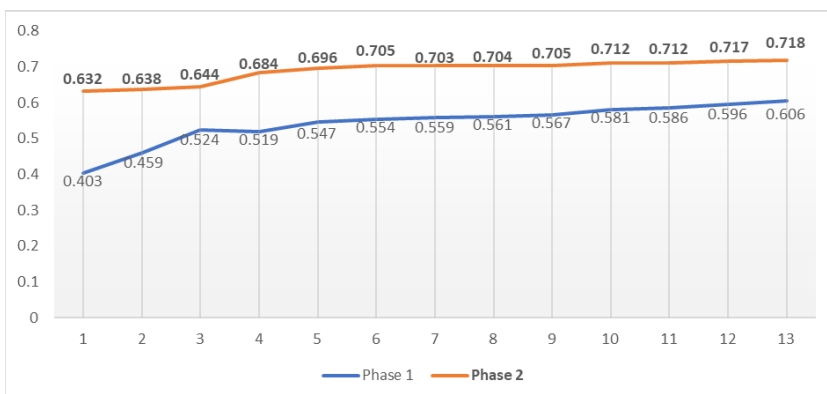
Figure 5. Weekly correlation values regarding the issue of education.

During the second trimester, a significant increase in similarity was seen to occur with Week 6 of media data ($r = 0.705$). The highest correlation value was found during Week 13.

The issues examined in a single period

The study focused on three specific issues in the first trimester (Phase 1), as these were not considered to be relevant in Phase 2. The findings indicate these issues to have become significant within the first 6 weeks.

Data regarding the Eastern Mediterranean issue suggests that the correlation values for the issue reached the highest point in Week 6 ($r = 0.804$). Similarly, the correlation values for the Istanbul canal were at the highest in Week 6 ($r = 0.871$). The data on the Istanbul Convention indicate a significant level of similarity to have been achieved in Week 6 ($r = 0.81$), and these levels were subsequently surpassed in Weeks 7-13.
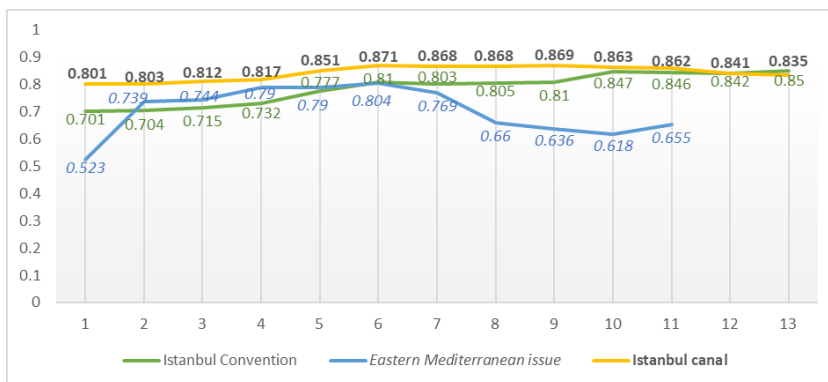
Figure 6. Correlation values regarding the issues of the Istanbul Convention, Eastern Mediterranean, and Istanbul canal.

Discussion and conclusion

In general, the optimum effect is achieved after six weeks. This is shown by the remarkable correlation value of the data regarding Week 6 for six of the analyzed issues. Specifically, the issues of national security, Eastern Mediterranean, and Canal Istanbul show a clear bell curve trend at the 6-week mark. A similar trend is observed for foreign policy,

COVID-19, and the Istanbul Convention. However, a slight decline occurred with regard to Weeks 7-13 for these issues. The level of similarity was also understood to gradually increase over time. For the issues of violence and of education, although six weeks of content indicates a certain level, this similarity gradually increased over the following weeks (Weeks 7-13).

The second key finding is that the media's agenda-setting effect typically accumulates over time. In other words, news coverage of an issue causes that issue to become increasingly similar to the network connections in the public's mind over time.

The 6 week time period seems compatible with other studies in the literature but reveals a more definitive time period. This is because McCombs et al. (1995, p. 285) indicated the time period required for an issue on the media agenda to influence the public opinion agenda to usually be 5-7 weeks. Their study also emphasized the importance of the nature of the issues. The findings obtained in this research also indicate the same point.

Noteworthily, the third-level of agenda-setting theory was not confirmed for three issues: justice, economy, and immigrants. The reasons for this lack of confirmation can be evaluated in the context of the nature of these issues. While the media provided extensive coverage of various subheadings related to these three issues, the survey results indicated that individuals had answered based on their daily life experiences and practical knowledge of the basic meaning of these issues. However, the research structure was insufficient to explain why the theory was not confirmed regarding these issues.

As a result, research on media effects or agenda-setting theory can be emphasized to need to consider at least six weeks of news media content. Therefore, to see findings on the media effects being limited or remaining at lower levels in studies covering shorter periods of time would not be surprising. However, when a period of at least 6 weeks is examined, the effects of the media can generally be seen more clearly.

Meanwhile, this finding is considered to be able to have practical value, particularly in relation to studies of media campaigns. In this context, a maximum period of about 40-45 days has been estimated to be able to be sufficient for an effective media campaign. However, higher levels of similarity should be emphasized as having been assumed will be achieved through an accumulative long-term effect. Although a six-week period

may suffice for certain issues, longer-duration campaigns can be noted as generally being able to be more effective.

Future studies can focus on the differences among media types regarding different issues. For example, the question of optimal time-lag for the third-level of agenda-setting effects regarding prominent issues on social media has yet to be investigated.

References

Cheng, Y., & Chan, C. M. (2015). The third level of agenda setting in contemporary China: Tracking descriptions of moral and national education in media coverage and people's minds. *International Journal of Communication*, 9, 1090-1107.

Dearing, J. W. & Everett, M. (1996). *Communication concepts 6: Agenda-setting*. Sage.

Dingil, A. E. (2018). *Üçüncü aşama gündem belirleme araştırması: Sağlık haberleri özelinde medya ve kamuoyu bağlantısı* [Unpublished Doctoral Dissertation]. Anadolu University. https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp

Dingin, A. E. (2019). Kadına yönelik şiddet haberlerinin kamuoyuna etkisi: Üçüncü aşama gündem belirleme çalışması. *İstanbul Arel Üniversitesi İletişim Çalışmaları Dergisi*, 15, 53-72. https://dergipark.org.tr/en/download/article-file/1017779

Dingin, A. E. (2020). Ekonomi haberlerine yönelik üçüncü aşama gündem belirleme araştırması. *Gümüşhane Üniversitesi İletişim Fakültesi Elektronik Dergisi*, 8 (1), 133-154. https://dergipark.org.tr/tr/pub/e-gifder/issue/53420/649542

Guo, L., & McCombs, M. (2011a). *Network agenda setting: A third level of media effects* [Conference presentation]. ICA 2011 Convention, Boston, United States. http://www.leiguo.net/publications/guo_nas_2011_ica.pdf (15.10.2023).

Guo, L., & McCombs, M. (2011b). *Toward the third level of agenda setting theory: A network agenda setting model* [Conference presentation]. AEJMC 2011 Convention, St. Louis, Missouri, United States.
 http://www.leiguo.net/publications/guo_nas_2011_aejmc.pdf (15.10.2023).

Guo, L., Chen, Y. K., Vu, H., Wang, Q., Aksamit, R., Guzek, D., … McCombs, M. (2015). Coverage of the Iraq war in The United States, Mainland China, Taiwan and Poland: A transnational network agenda-setting study. *Journalism Studies*, 16 (3), 343-362. https://www.tandfonline.com/doi/full/10.1080/1461670X.2014.885198.

Guo, L., Vu, H. T., & McCombs, M. (2012). An expanded perspective on agenda setting effects: Exploring the third level of agenda setting. *Revista de Comunicación*, 11, 51-68. https://revistadecomunicacion.com/pdf/2012/Art051-068.pdf

İrvan, S. (2001). Gündem belirleme yaklaşımının genel bir değerlendirmesi. *Gazi Üniversitesi İletişim Fakültesi Dergisi*, 9 (1), 69-106.

Luo, Y., Burley, H., Moe, A., & Sui, M. (2018). A meta-analysis of news media's public agenda-setting effects 1972-2015. *Journalism & Mass Communication Quarterly*, 91 (1), 150-172. https://journals.sagepub.com/doi/abs/10.1177/1077699018804500

McCombs, M., & Valenzuela, S. (2021). *Setting the agenda*. Polity.

McCombs, M., Danielian, L., & Wanta, W. (1995). Issues in the news and the public agenda: the agenda-setting tradition. T. L. Glasser, & C. T. Salmon (Eds), *Public Opinion and the Communication of Consept* (pp. 281-300). The Guilford Press.

Nuendorf, K. A. (2002). *The content analysis guidebook*. Sage.

Roberts, M., Wanta, W., & Dzwo, T. D. (2002). Agenda setting and issue salience online. *Communication Research*, 29, 452-465.

Severin, W. J., & Tankard, J. W. (1994). *İletişim kuramları (*A. A. Bir & S. Sever, Trans.). Kibele.

Shoemaker, P. J., Wanta, W., & Leggett, D. (1989). Drug coverage and public opinion, 1972-1986. P. J. Shoemaker (Ed), *Communication Campaigns About Drugs* (pp. 67-80). LEA.

Stone, G. C., & McCombs, M. E. (1981). Tracing the time lag in agenda-setting. *Journalism Quarterly*, 58 (1), 51-55. https://journals.sagepub.com/doi/10.1177/107769908105800108

Vargo, C. J., Guo, L., McCombs, M., & Shaw, D. L. (2014). Network issue agendas on Twitter during the 2012 U.S. presidential election. *Journal of Communication*, 64 (2), 296-316. https://onlinelibrary.wiley.com/doi/abs/10.1111/jcom.12089

Vu, H. T., Guo, L., & McCombs, M. (2014). Exploring 'the world outside and the pictures in our heads': A network agenda-setting study. *Journalism & Mass Communication Quarterly*, 91 (4), 669-689. https://journals.sagepub.com/doi/10.1177/1077699014550090

Wanta, W., & Hu, Y. W. (1994). Time-lag differences in the agenta-setting process: An examination of five news media. *International Journal of Public Opinion Reserach*, 6, 225-240. https://academic.oup.com/ijpor/article/6/3/225/880876

Wanta, W., Golan, G., & Lee, C. (2004). Agenda setting and international news: Media influence on public perceptions of foreign nations. *Journalism & Mass Communication Quarterly*, 81, 364-377. https://journals.sagepub.com/doi/10.1177/107769900408100209

Winter, J. P., & Eyal, C. H. (1981). Agenda setting for the civil right issue. *The Public Opinion Quarterly*, 45 (3), 376-383. https://www.jstor.org/stable/2748612

Yüksel, E., & Dingin, A. E. (2020a). Does "it" work in Turkey? A network agenda-setting research. *Erciyes İletişim Dergisi*, 7 (1), 435-450. https://dergipark.org.tr/tr/download/article-file/943305

Yüksel, E., & Dingin, A. E. (2020b). *Medya, kamuoyu ve siyaset gündeminde köşe kapmaca*. Literatürk.

Yüksel, E., Koçak, A., Dingin, A. E., & Karaca, N. G. (2023). *Medyadan zihnimize üçüncü aşama gündem belirleme Türkiye araştırması*. Literatürk.

Yüksel, E., Koçak, A., Karaca, N. G., & Dingin, A. E. (2022). Medyadan Zihnimize Üçüncü Aşama Gündem Belirleme Türkiye Araştırması. *TÜBİTAK Project No: 120R028*. https://drive.google.com/file/d/1h3c1fm4TmYNZ23_79ztCT4k1wTxY8AJP/view