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Taking it personal or national? Understanding the indirect effects of economic news on government support

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ABSTRACT
This article studies the impact of economic news on government support and the mediating role of people's national (sociotropic) and personal (egotropic) economic evaluations. Employing two complementary studies, a large literature is contributed to by adding a media perspective to the economic voting hypothesis. The first study was fielded in 2015 and combines an extensive content analysis of economic news (print, television, online; $N = 5,630$) with a three-wave panel survey ($N = 3,240$). As a follow-up, an experiment was conducted in 2018 exposing participants ($N = 1,452$) to negative and positive economic news. Both studies confirm that the tone of news directly affects national economic evaluations but not personal ones. Whereas both types of evaluation predict government support, the effect of national evaluations is significantly stronger. Most importantly, it is shown that the effect of national evaluations on government support is actually a mediation of the effect of economic news.

Research has shown how economic news influences people's economic evaluations, above and beyond the impact of economic trends in the real world (e.g. Blood and Phillips 1995; Soroka 2014). This implies that a growing economy does not always and necessarily lead to more economic optimism among citizens; economic news, and *negative* economic news in particular, exerts a substantial impact as well (e.g. Damstra and Boukes 2018; Soroka 2006).

Subsequently, economic evaluations have a bearing on political attitudes. The economic voting literature evolves around the idea that the electorate rewards or punishes the incumbent government (parties) for

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how it thinks the economy has been dealt with (e.g. Duch and Stevenson 2008; Lewis-Beck 1988). The more negative people's perceptions in this regard are, the smaller the likelihood that people will support the government (Soroka 2014). This makes the study of economic news all the more relevant, as it is an essential source of information on which people rely to form their economic judgments, which in turn may thus affect political preferences.

Surprisingly, there is very little research that combines both perspectives, examining how economic news, *through* economic evaluations, eventually has a bearing on political support. In fact, we observe a research divide: Communication scholars study the impact of economic news on economic evaluations (e.g. Damstra and Boukes 2018), and political scientists look into the influence of economic evaluations on government support (e.g. Lewis-Beck, Nadeau, and Elias 2008). This academic divide is problematic, as in reality these relationships are closely connected. With this study, we aim to integrate both perspectives into one single design and investigate (a) how economic news affects economic evaluations and government support; (b) to what extent the impact of economic news on government support is mediated by economic evaluations, and (c) whether this mediation runs mainly through people's personal or national economic evaluations. The inclusion of a media perspective adds an important nuance to the already rich economic voting literature in which the impact of economic news is generally neglected. It allows us to study economic evaluations as mediating variables instead of independent variables, thereby offering a more complete account of the causal chain ultimately resulting in varying levels of government support.

As our aim is to test the hypotheses as thoroughly as possible, we conduct two complementary studies that seek to answer the same research question: How does economic news, through personal (i.e. egotropic) and national (i.e. sociotropic) economic evaluations, eventually shape support for the government? The combination of studies and the resulting methodological triangulation allow for a thorough assessment of these effects, as the first study uses real economic news data over time thereby satisfying the criterion of external validity, while the second study uses an experimental design with high internal validity.

Economic news and public opinion

The literature on public choice has demonstrated how news coverage of real-world developments may have a direct bearing on political support (Kleinnijenhuis et al. 2007; Mueller 2003). Whereas positive news about the economy is beneficial for incumbent parties (i.e. the government),

negative economic news leads to more support for parties in opposition. We follow this line of thought and hypothesize a direct effect of economic news on government support:

H$_1$: The tone of economic news has a direct positive effect on government support

Economic growth or decline, business cycles and federal budget deficits, these are all rather elusive phenomena to most people. Hence, the national economy is a topic for which most people depend on the media to get their information (Boukes, Damstra, and Vliegenthart 2019; Zucker 1978). The literature provides ample evidence confirming the impact of economic news on the formation of citizens' economic evaluations (e.g. Blood and Phillips 1995; Hetherington 1996; Hollanders and Vliegenthart 2011). Especially the impact of the tone of economic news is well documented; positive news leads to economic optimism and negative news leads to economic pessimism among the public (e.g. Boydstun, Highton, and Linn 2018; Soroka 2014), the latter effect being typically stronger than the former (Soroka 2006).

Compared to perceptions of the *national* state of the economy, people's perceptions of their own *personal* economic situation are less affected by news content (Boomgaarden, van Spanje, Vliegenthart and de Vreese 2011). Being provided with more direct cues (i.e. changes in costs of living, getting or losing a job), people are less dependent on the media to learn how things are going. Nevertheless, there is some empirical evidence suggesting that also on the personal level people are sensitive to economic news content, especially when the content is negative (Soroka 2014) or when it deals with specific issues - such as unemployment - that may directly impact the lives of citizens (Kalogeropoulos 2018). We investigate the impact of economic news on national as well as personal economic evaluations, expecting that the effect is strongest for national evaluations. These expectations are formalized in the second and third hypotheses:

H$_2$: The tone of economic news has a direct positive effect on national and personal economic evaluations

H$_3$: The economic news effect is stronger for national than for personal economic evaluations

The idea that economic considerations have a bearing on political attitudes is not new. There is a voluminous amount of research that shows how economic evaluations predict support for the incumbent government or president (e.g. Duch and Stevenson 2008; Kalogeropoulos, et al. 2017; Lewis-Beck 1988; Lewis-Beck and Stegmaier 2000; Van Dalen et al. 2018). Theoretically, there is reason to expect national as well as personal economic evaluations to have an impact. Voters may reward or punish the

government for the state of the national economy as they consider what governments have tried to accomplish, but they may also vote with their pocketbooks because, as *homines economici,* they are mainly driven by their own (group) interests (Nannestad and Paldam 1997: 119). Empirical research has provided strong evidence for the impact of national economic evaluations (e.g. Lewis-Beck and Paldam 2000; Lewis-Beck and Stegmaier 2000; Soroka 2014), and somewhat less so for the idea of voters judging the government on the basis of their own economic fortunes (but see Sanders 2000; Soroka 2014). Building on this research, we thus hypothesize:

H_4: National and personal economic evaluations have a direct positive effect on government support

H_5: The effect of national economic evaluations on government support is stronger than the effect of personal economic evaluations

Only few studies in this field include economic news content as an independent variable in their designs. In most instances, the focus is not on explaining economic evaluations as these are only treated as explanatory variables. However, economic evaluations do not emerge in a vacuum, and especially national economic evaluations are to a considerable degree based on what people may learn from the news. Not taking actual news content into account implies overlooking a part of the chain of effects, which is problematic as there is ample empirical evidence showing how economic news is *not* a mere reflection of economic reality (e.g. Fogarty 2005; Hetherington 1996; Soroka 2006). In most research the implicit assumption is made that media presentations of the economy are rather accurate, as scholars acknowledge that economic evaluations are based on mass media but do not account for this relationship in their designs.

A notable exception is provided by Sheafer (2008) who also signals this gap in the literature: "Findings underline the importance of including the media in economic voting hypothesis analyses (…) [but] not many among more than 300 articles and books include empirical analyses of the role of the media" (Sheafer 2008: 37). Subsequently, Sheafer combines economic media content of Israeli newspapers with survey data measuring support for the government and vote intention, finding that economic news indeed shapes voting behavior through national economic evaluations. A difficulty in his empirical design is the measure of economic evaluations, as these are not regularly asked in election surveys. Therefore, surrogate measures are used, more specifically: one item asking people about their expectations regarding the economic performance of (government) parties (as proxy for national evaluations) and one item asking people about their levels of monthly expenditure compared with the Israeli average (as proxy for personal evaluations). As good as these
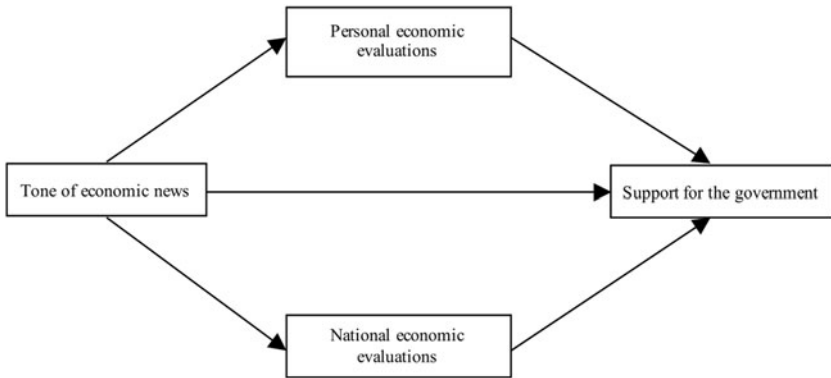
Figure 1. Conceptual model.

measures may be given the constraints of the context, they cannot provide the decisive empirical evidence concerning the mediating role of economic evaluations.[1]

We expect that the impact of national and personal economic evaluations on government support (H_4) starts with the tone of economic news. Therefore, we hypothesize that economic evaluations are actually mediating variables through which the effect of economic news runs. This leads to the sixth and final hypothesis:

H_6: The effect of economic news on government support is mediated through both national and personal economic evaluations

Figure 1 provides an overview of the relationships under study.

Study 1: Content analysis linked to panel data

Study 1 tests the hypotheses by relying on a combination of *media data* obtained from a manual content analysis of economic news items and *panel survey data* including detailed measurements of individual media exposure.

Content analysis

Between February and April 2015, a content analysis of 5,630 economic news items in the Netherlands was conducted. The aim was to provide a comprehensive account of the coverage. We defined economic news broadly, covering news dealing with the general state of the economy but also items on subthemes such as unemployment, interest rates or the housing market. Table 1 provides the numbers of economic news items per type of outlet per wave.

Table 1. Media data per outlet per wave.

Source	Published before wave 2	Published before wave 3	Total (n)
Newspaper articles	2,377	2,062	4,439
Online articles	373	384	757
Television news items	214	220	434
Total (n)	2,964	2,666	5,630

We used the digital archives of LexisNexis to retrieve all 4,439 articles (not a sample) originating from ten of the most-read newspapers in the Netherlands. This dataset included three national quality newspapers (*NRC, Trouw, de Volkskrant*), two national popular newspapers (*Algemeen Dagblad, Telegraaf*), one national free daily newspaper (*Metro*), one national financial newspaper (*Het Financieele Dagblad*) and three regional newspapers (*Dagblad van het Noorden, Gelderlander, Noordhollands Dagblad*) from different publishing houses. Because regional newspapers (39% of the market) from the same publishing house have a shared newsroom for most news (including economics), we could cover the majority of regional print outlets by analyzing these three specific outlets.

Similar to the newspaper approach, we selected *all* economic news items from the most frequently visited news website in the Netherlands (*Nu.nl*). In addition, a random sample (approximately 25%) of economic news items from four of the most popular Dutch news websites (*Telegraaf.nl, Volkskrant.nl, NRC.nl, NOS.nl*) was selected ($n = 757$).

A variety of television programs bringing economic news were analyzed leading up to 434 economic news items. We included newscasts from the public (*NOS Journaal*) as well as from the commercial broadcaster (*RTL Nieuws*). In addition, we included current affairs programs in which the background to the news has a more prominent place (*Nieuwsuur, EenVandaag*), a business news program (*RTL Z*) and two domestically-oriented news programs (*EditieNL, Hart van Nederland*).

Each news item was coded for the tone of the content with regard to the state of the Dutch national economy.[2] Tone was measured by using a scale running from −2 (*completely negative*) to 2 (*completely positive*). The mean tone of all economic news items was found to be slightly positive ($M = 0.04$, $SD = 0.76$), which is in line with real economic trends during these months. In order to be able to link the media data to the individual panel survey data, the dataset was aggregated to wave-outlet combinations. Every unit of observation thus indicated the number of economic news items in a particular outlet before a particular wave, together with the summed tone score (based on the −2 to 2 scale) of all items per outlet. A set of 148 articles (both print and online) was analyzed by multiple coders (minimally 3) to verify intercoder reliability of the tone variable (Krippendorff's $\alpha = .69$).

Panel data

The three-wave panel survey was fielded in the spring of 2015 on a sample of Dutch citizens recruited through random sampling from population registers. There was a gap of eight weeks between each wave (February, April, June). 6,386 respondents completed the first questionnaire (completion rate: 70.1%), and 3,270 respondents completed *all* three questionnaires (28% attrition per wave). 30 respondents refused to fill out their highest educational degree and were excluded from further analysis. The sample deviated from the general Dutch population with an overrepresentation of male (69.6%), highly educated (50.9% obtained a university degree), and older respondents ($M = 61.58$, $SD = 11.04$). Since we are interested in understanding the relationships and causal mechanisms between news consumption and economic and political attitudes rather than providing representative point estimates of the relevant variables, we do not deem this deviation problematic.

National economic evaluations were measured by means of a scale combining two questions, one tapping people's *retrospective* and one tapping people's *prospective* national economic evaluations. These questions were formulated as follows: *Do you think that the general economic situation in our country has deteriorated, improved or remained the same over the past twelve months?* and *How do you evaluate the general economic situation in the next twelve months?* These questions—both answered on an 11-point scale ranging from 0 (*much worse*) to 10 (*much better*)— formed a reliable index in each survey wave ($M = 5.01$, $SD = 1.49$; W_1: $\alpha = .83$; W_2: $\alpha = .84$; W_3: $\alpha = .85$).

Similarly, personal economic evaluations were constructed on the basis of two questions, one measuring *retrospective* and one measuring *prospective* personal economic evaluations. The questions were *Do you think that the financial situation of your household has deteriorated, improved or remained the same over the past twelve months?* and *How do you evaluate the financial situation of your household in the next twelve months?* Again, both questions were answered on an 11-point scale, and used to construct a new index that proved to be reliable across all waves ($M = 4.32$, $SD = 1.33$; W_1: $\alpha = .69$, W_2: $\alpha = .71$, W_3: $\alpha = .69$).

Government support was measured by means of the question *When thinking about Dutch politics, how satisfied are you in general with the functioning of the current government?* Respondents could answer this question on an 11-point scale ranging from 0 (*very unsatisfied*) to 10 (*very satisfied*); results indicated that respondents were on average not very satisfied ($M = 4.88$, $SD = 2.08$).[3]

For every outlet, respondents were asked for how many days per week they watched or read it. Values were converted into scores ranging from

0 (*minimal use*) to 1 (*maximal use*). In addition, a scale was created measuring the *overall* exposure of respondents to all of the outlets together ($M = 4.08$, $SD = 2.00$). The individual exposure scores to specific outlets were combined with the actual economic news content in these outlets, as measured by the content analysis. For every respondent (i) before every wave (j), exposure to a specific outlet (k) was multiplied by the summed tone of economic news within this specific outlet. This procedure can be summarized by the following formula: $Tone_{ij} = \sum$ *exposure to [outlet k_i] × tone score of [outlet k_j]*. While this approach has been challenged for not being able to distinguish between effects of specific content features and general news exposure (Fazekas and Larsen 2016), this criticism is convincingly refuted in recent work (De Vreese et al. 2017). We do include general news exposure as a control variable in our models (see below), to be able to detect the unique effects of content (i.e. tone) on our dependent variables.

In our analysis, we control for several background characteristics: *gender* (dummy variable, coded as '1' for female), *age*, and *education*. The latter is operationalized as the highest educational degree the respondent obtained (7-point scale, ranging from 'none/primary school' [1] to 'university (master's) degree' [7], $M = 5.01$, $SD = 1.56$). Additionally, we include left-right ideological self-positioning as an additional control variable, measured on a 10-point scale, ranging from 1 (far-left) to 10 (far-right) ($M = 6.00$, $SD = 2.07$). Furthermore, we include real-life economic experiences as an explanatory variable. The related items were all measured during Wave 3. *Positive experiences* were measured by asking respondents whether they experienced one of the following things after Wave 1 was fielded: Receiving a pay rise, being promoted to a higher function or finding a job. Based on these items, a dummy variable was created, '0' indicating zero affirmative answers and '1' indicating at least one affirmative answer ($M=.03$). For *negative experiences*, we asked the same question for the following experiences: Getting unemployed or receiving a pay reduction ($M=.02$). Again, a dummy variable was computed (% scoring a '1'). In addition, we captured *financial problems*, by asking whether respondents experienced difficulties paying bills and/or had to reduce their spending for financial reasons. Again, we created a dummy variable, '0' indicating zero affirmative answers and '1' indicating at least one affirmative answer ($M=.28$). Finally, we also include overall *news exposure* as measured in Wave 1 (see description above), i.e. irrespective of the actual content.

Method

We analyze our data by using regression models with lagged dependent variables and clustered standard errors (per respondent). The mediating

role of economic evaluations is examined by means of Sobel tests (Baron et al. 1986). We did not rely on bootstrapping methods, since these are less readily applied in our panel design. However, when dealing with large sample sizes (as we do), the results of different tests for mediation are similar in the vast majority of the cases (Hayes and Scharkow 2013). In the regression models predicting economic evaluations (personal and national), we include the waves to control for the overall trends of the dependent variables over time.

We prefer this analytical strategy over alternative methods, such as the use of a structural equation model, since it allows for a more comprehensive use of our data (estimating both Wave 2 outcome variables based on Wave 1 explanatory variables, as well as Wave 3 based on Wave 2) and the opportunity to account for dependencies across observations (both temporal, as well as due to multiple observations per respondent). A disadvantage of this choice is that the mutual reciprocal effects of economic evaluations and government support cannot be directly modelled. Previous studies have considered the effect of government support on economic evaluations (e.g. De Boef and Kellstedt 2004). In our data, we find indeed that this relationship exists as well: A fully specified cross-lagged model suggests that relationships between national economic evaluations and government support are reciprocal, with comparable standardized effect sizes of lagged evaluations on government support ($\beta=.123$) and of lagged support on national economic evaluations ($\beta=.160$). Results for personal economic evaluations are similar ($\beta=.085$ and $\beta=.104$). We account for these findings by including lagged government support as an additional explanatory variable in the models that predict national and personal economic evaluations.

Results

Economic news and economic evaluations

Table 2 shows the results predicting economic evaluations. The tone of economic news in the weeks leading up to the survey waves has a positive and highly significant impact on people's national economic evaluations (first column). More positive economic news leads to more optimistic perceptions regarding the national economy. The results in the second column of Table 2 show that the tone of economic news does *not* have any impact on evaluations of the own economic situation. Therefore, we only accept Hypothesis 2 with regard to national economic evaluations, but not to the personal ones. Hypothesis 3 is fully confirmed, as the positive effect on national evaluations is significantly stronger than the null finding for personal evaluations. In addition, we find that media exposure (irrespective of

Table 2. Explaining economic evaluations.

	National economic evaluations b (SE)	Personal economic evaluations b (SE)
Constant	1.844*** (.113)	1.616*** (.107)
Lagged dependent variable	.581*** (.013)	.641***(.011)
Government support (t-1)	.105*** (.008)	.061*** (.006)
Female	−.105*** (.025)	−.016 (.021)
Age	.003** (.001)	−.005*** (.001)
Education	.010 (.008)	.003 (.007)
Positive experiences	.021 (.073)	.306*** (.074)
Negative experiences	−.108 (.092)	−.323*** (.071)
Financial problems	−.165*** (.028)	−.268*** (.026)
Left-right positioning	−.011 (.006)	−.006 (.005)
Tone economic news (t-1)	.003** (.001)	−.000 (.001)
Media exposure (Wave 1)	−.011 (.008)	−.007 (.007)
Wave	−.066** (.027)	.064* (.025)
R^2	.526	.552
N	6480	6480

Table 3. Explaining government support.

	Government support b (SE)	Government support b (SE)
Constant	.900*** (.119)	.343** (.131)
Lagged dependent variable	.751*** (.008)	.687*** (.010)
Female	.041 (.025)	.084** (.025)
Age	.001 (.001)	.001 (.001)
Education	.029*** (.008)	.015 (.008)
Left-right positioning	.034*** (.007)	.035*** (.006)
Positive experiences	.074 (.081)	.087 (.076)
Negative experiences	−.192* (.090)	−.156 (.088)
Financial problems	−.229*** (.030)	−.143*** (.031)
Tone economic news (t-1)	.003** (.001)	.003** (.001)
Media exposure (Wave 1)	−.031*** (.009)	−.028** (.009)
National economic evaluations (t-1)		.137*** (.013)
Personal economic evaluations (t-1)		.061*** (.013)
Wave	.090* (.033)	.044 (.033)
R^2	.673	.683
n	6480	6540

the content) – added as control variable – has no impact on people's perceptions of the national economy nor on perceptions of their own economic situation. Government support has an influence, with higher levels of support resulting in more optimistic economic evaluations, while females are less optimistic about the national economy than males. Also age has small effects on both national (positive) and personal evaluations (negative). People's direct experiences, not surprisingly, mainly affect personal evaluations. Especially financial problems in the recent past have a negative impact on how people evaluate their own financial situation.

Predicting government support

To examine the factors by which government support is affected, a second set of analyses is conducted. Table 3 shows the results, the first column

displaying the effects without economic evaluations being included in the model and the second column with economic evaluations being included.

Column one shows that more positive economic news has a positive bearing on support for the incumbent government, supporting Hypothesis 1. This direct and positive effect becomes weaker once economic evaluations are added to the equation (B = .0034 in the first model and B = .0029 in the second model). National economic evaluations have a positive and significant effect on government support, as well as personal economic evaluations. From the analyses presented above, and Table 2 specifically, we already know that the tone of economic news has a significant impact on people's national economic evaluations. The Sobel test for mediation shows that, indeed, the economic news effect is partly *mediated* through national economic evaluations (Sobel test: 2.70, $p < .001$).

Personal economic evaluations also have a direct, positive impact on government support, leading us to accept Hypothesis 4. The effect is about half as strong as the impact of national economic evaluations and this difference in effect size is significant, $F(1, 3269) = 12.72$, $p < .01$. Therefore, we accept Hypothesis 5; national economic evaluations are a stronger driver of government support than evaluations of people's own economic situation, although the latter do matter as well. Because no effect was found of economic news on personal evaluations, we can only partly confirm Hypothesis 6: Evaluations of the *national* economy mediate the impact of economic news on people's judgments of the government, but *personal* perceptions do not.

In addition, we find a number of control variables to have an impact as well. Media exposure leads to less support for the government. Female respondents are slightly more positive about the government than male respondents, and so are those who consider themselves more right-wing, which makes sense given the center-right coalition government that was in place during the time of data collection. Finally, respondents that experienced financial problems in the recent past report lower levels of support for the government.

Study 2: Experiment

Method

The same people that participated in Study 1 and completed at least Wave 1, were re-contacted a few years later to participate in an online experiment. From April 30th to June 26th 2018, a sample of 2,191 Dutch adults were recruited. Alike the first study, the sample is somewhat older than the Dutch population ($M = 65.00$, $SD = 10.41$), male dominated (71.4% male) and higher educated, with the highest completed

educational level ranging from primary education or lower (15.0%), intermediate to higher vocational training (63.5), to a Bachelor degree or higher (21.6%). Political preferences are distributed rather equally: 42.1% has a right-wing political preference, 13.0% indicates having neither right-nor left-wing political preference, and 45.0% held a left-wing political preference.

National economic evaluations are measured by means of the exact similar questions as used in the panel survey tapping into people's retrospective and prospective evaluations of the national economic situation. These items form, again, a reliable 11-point index ($M = 6.92$, $SD = 1.36$; $\alpha = .84$). Also personal economic evaluations are measured by the same questions as deployed in the panel survey, resulting in another reliable index ($M = 5.74$, $SD = 1.27$; $\alpha = .80$). Finally, a similar question was used to measure government support: *When thinking about Dutch politics, how satisfied are you in general with the functioning of the current government?* Participants could indicate their satisfaction by means of an 11-point scale ranging from 0 (*very unsatisfied*) to 10 (*very satisfied*) ($M = 5.93$, $SD = 2.10$). Compared to the results of the panel survey that was conducted in 2015, the results show that, on average, respondents have become more optimistic about the – national and personal - economy and more satisfied with the government. This could be due to the fact that the Dutch economic context in 2018 was more prosperous compared to the situation in early 2015, which was characterized by early signs of economic recovery after the severe financial crisis that also affected the Netherlands.

Experimental design

After providing informed consent, the participants were randomly assigned to one of 12 conditions. Randomization checks confirmed that the participants were equally distributed in terms of age, gender, education and income. The experiment follows a 2 (tone of content: negative vs. positive) × 3 (economic issue: obtrusive/concrete vs. unobtrusive/abstract vs. control) × 2 (level of uncertainty: high vs. low) between-subjects factorial design. However, as the current focus is on the impact of the tone of economic news alike the set-up of Study 1, we excluded those participants in the issue control condition ($n = 739$). In addition, we only focus on the tone manipulation as our independent variable and we collapsed all other categories.

Stimuli

Based on the most-read Dutch news website Nu.nl (Reuters 2017), we created four different versions of an economic newspaper article. The

tone and the issue of the items were manipulated. Each news items compared figures from the first quarter of the current year to figures from the first quarter of the previous year. Quarterly figures related to GDP trends or to inflation rates. In the positive news condition, the quarterly figures from the current year were better than the quarterly figures from the previous year, in the negative news condition, the quarterly figures from the current year were worse compared to the ones from the year before. As our aim is to replicate Study 1, we only focus on the impact of economic news through the tone of the content and therefore all other categories are collapsed including the issue of the item. Additional analyses – not displayed here – show that a further specification of media effects yield the same results. In other words: The impact of tone is similar across all issue conditions and is also not affected by higher or lower levels of uncertainty in the news.

A pilot study ($N = 133$) served to check whether the manipulations worked as intended. Participants were asked "*Thinking back to the news article you just read, on a scale from 0 (very negative) to 10 (very positive) to what extent do you consider the information in the article as being negative or positive?*" Participants in the negative condition perceived the news item as more negative ($M = 6.86$, $SD = 1.74$) than those in the positive condition ($M = 3.45$, $SD = 1.52$; $p < .001$), confirming the effective manipulation of tone.

Results

Table 4 provides a descriptive summary of the data under study. Participants who were exposed to a negatively valenced economic news article reported more pessimistic national economic evaluations and more pessimistic personal economic evaluations, as well as lower levels of government support. The difference across tone conditions is biggest when looking at participants' national economic evaluations. An independent-samples t-test shows that this difference is also highly significant ($t = 4.48$; $p < .001$). For personal economic evaluations there is a non-significant difference in the scores across tone conditions (t $= 0.97$; $p = .33$), the same holds for the difference between means of government support ($t = 0.34$; $p = .74$).

Table 4. Descriptive statistics per condition.

Condition (N)	Tone	National evaluations (M, SD)	Personal evaluations (M, SD)	Government support (M, SD)
1. (N = 735)	Negative	6.76 (1.41)	5.71 (1.33)	5.91 (2.12)
2. (N = 717)	Positive	7.08 (1.28)	5.77 (1.22)	5.95 (2.09)
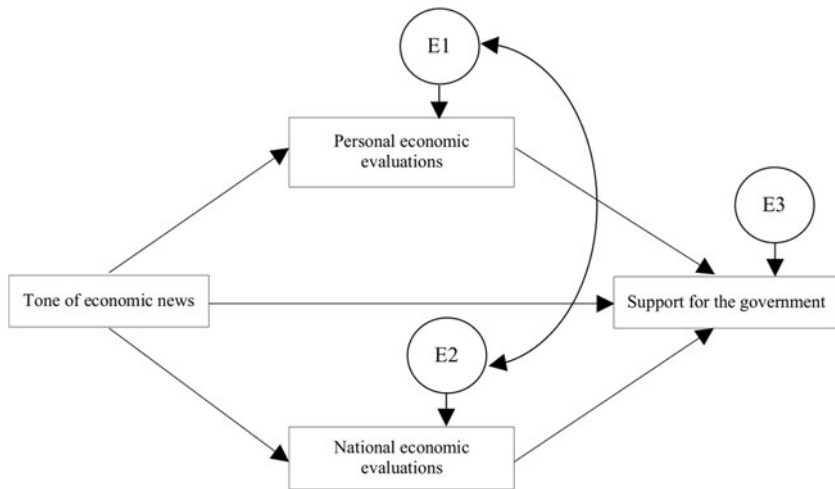
Figure 2. SEM Model.

Table 5. Maximum likelihood estimates.

Hypothesis	Independent variable	Dependent variable	B	S.E.	P
1	Negative news	Government support	.188	.094	.046
2	Negative news	National evaluations	−.318	.071	***
2	Negative news	Personal evaluations	−.063	.067	.343
4	National evaluations	Government support	.639	.038	***
4	Personal evaluations	Government support	.349	.040	***

Note: Values are unstandardized coefficients and standard errors.
*p <.05; **p<.01; ***p<.001.

We rely on structural equation modelling techniques to estimate the effects of economic news on both types of economic evaluations and, subsequently, government support (Figure 2). The analyses were conducted in *AMOS 25* using maximum likelihood estimation, which resulted in a model (Figure 2) with a perfect data fit (CFI >.99; RMSEA = .00; SRMR = .00), because the model was fully saturated (i.e. all variables were related to each other).

Effects of economic news via economic evaluations

Table 5 shows the estimates of the effects. The parameter estimate yields a significant result for the effect of negative news on national economic evaluations, but not for the effect of negative news on personal economic evaluations. Testing a model in which both effects are restrained to be equally strong, results in a significantly worse model fit, $\chi2$ (1) = 11,40, p = .001, indicating that the effect on national evaluations is significantly stronger than the effect on personal evaluations. These results are fully in line with the results from Study 1 and provide another confirmation of Hypothesis 2.

We observe a direct effect of economic news on government support, however, the effect runs in the opposite direction as we hypothesized: Negative news leads to *more* support for the government. Additional analyses (not displayed here) show that the direct effect of negative news indeed disappears ($b = -,037$, S.E. $= .110$, $p = .737$) once national and personal economic evaluations are excluded from the model. In fact, the direct news effect is *only* present in the full model, which also controls for the indirect effect of news through economic evaluations. This may imply that the tendency of negative news to decrease government support is fully captured through its indirect relationship via national evaluations, and the remaining variance in the data captures a weak positive tendency. Or more concretely, in the absence of a total effect ($b = -.037$, $p = .737$) we found an indirect effect ($-.318 \times .639 = -.203$) that is stronger than the positive direct effect of negative news ($.188$) that accounts for alternative, unobserved processes occurring between the exposure to negative news and people's government support. Although insignificant, the data thus still show that, overall, in the conditions with a negative tone there is a little less support for the government. More importantly, the experimental set-up is most suitable to test mechanisms through which dependent variables may be affected, rather than estimating effects (sizes) as reflections of media effects in the real world, in particular when it comes to relative stable evaluations such as government support (see also the strong effects of previous government support in the panel study, Table 3).

We find that both national and personal evaluations have a positive impact on support for the government, and the effect of national evaluations is roughly twice as strong as is the effect of personal evaluations— this difference is significant, $\chi^2 (1) = 19.57$, $p < .001$. Again, these results resemble the findings of Study 1 and provide a second confirmation of Hypothesis 4 and Hypothesis 5.

In order to get a better understanding of the indirect effects of news coverage, it is necessary to further decompose the structural equation model (Holbert and Stephenson 2003). More specifically, to examine the mediating role of economic evaluations, we now adopt the bootstrap approach as proposed by Shrout and Bolger (2002). Table 6 presents the results, which indicate that the indirect effect of negative economic news

Table 6. Indirect effects of economic news (tone) on government support.

Parameter	b	Lower	Upper	P
Indirect effect negative news via personal evaluations	−.022	−.072	.021	.310
Indirect effect negative news via national evaluations	−.203	−.300	−.117	.000

Note: Values are unstandardized coefficients and standard errors.
[*]$p < .05$; [**]$p < .01$; [***]$p < .001$.

on government support via national economic evaluations is indeed significant. In contrast, personal economic evaluations do *not* mediate the impact of news on government support. These results resemble, again, the findings from Study 1, and provide the same partial confirmation of Hypothesis 6.

Discussion

The aim of this article was to investigate the impact of economic news on government support through economic evaluations. Although the theoretical rationale is not new, it has not been researched in a design in which the actual content of economic news is combined with repeated panel questions and in which these results are triangulated by a second study that complements the first in terms of methodological strength. Already in 2000, Lewis-Beck and Stegmaier called for more research on economic voting with a specific focus on the role of mass media, and with this study we have tried to respond to their request.

So what does it all mean? Combining these two studies, we could closely trace economic news effects and examine the possible mediation patterns of national and personal economic evaluations. The results are in line with the literature on economic voting (e.g. Lewis-Beck and Paldam 2000; Lewis-Beck and Stegmaier 2000; Soroka 2014), and provide the long overdue individual level confirmation of the hypothesized effects. The fact that both studies generate almost exactly the same results points to the robustness of our findings. Even today, in a rapidly changing media landscape, the traditional news is still of great importance to people when they evaluate the state of their national economy. For evaluations of their own economic situation, first-hand experiences are abundantly present and economic news will not provide any additional insights. Most importantly, the panel study together with the experiment provide strong empirical support for the indirect effect of economic news, *through* national economic evaluations, on support for the incumbent government. These results underscore the relevance of studying economic news, as the impact of the news is not limited to economic evaluations.

Taking economic news as starting point of the causal chain is key as research has shown how economic news is not neutral but, in fact, characterized by persistent biases (e.g. Hagen 2005; Soroka 2006). Most importantly, economic news tends to be skewed to the negative, not merely reflecting real-world economic trends but rather presenting a – more or less – distorted version of economic reality by excessively highlighting negative events. It follows that evaluations of the national economy are not necessarily accurate as most people rely on this news when

forming their economic evaluations. Only few studies seek to incorporate this media dimension, treating economic evaluations as *mediating* variables, whereas the vast majority of research only looks into the effects that economic evaluations may or may not have. This offers an incomplete account of the factors driving government support and it implicitly assumes that national economic evaluations are based on accurate economic information.

In addition, the results speak to work in the field of political communication that mainly has focused on the impact of frames and party visibility c.q. tone in the news when explaining support for (government) parties (e.g. Hopmann, Vliegenthart, de Vreese, and Albaek 2010). Our study opens up the black box of issue news and government support, by showing that not only media evaluations of political actors matter, but that also the coverage of a specific issue can affect – indirectly – levels of support. It remains an open question whether this effect is specific to the issue of the economy. However, as research has suggested that political behavior is increasingly related to a multidimensional political space based on an economic dimension as well as a cultural one (e.g. Kriesi et al. 2006), one could argue that similar mechanisms may apply to news about for example immigration or other typically contested cultural issues.

With this study we hope to offer robust empirical evidence of how the news, *through* economic evaluations influences government support. However, we are well aware of the work that is still to be done. First of all, the asymmetric news effects should be accounted for, as people tend to be much more responsive to negative compared to positive economic information (Soroka 2006). Second, economic news is extremely varied and research shows how different economic issues also have very different impacts on people (e.g. Damstra 2019; Kalogeropoulos 2018). While the current study focused specifically on the impact of economic news through the tone of the content, it could be worthwhile to trace valence as well as issue effects on economic evaluations and subsequent political support. The impact of the tone of news may well be contingent on the economic issue at hand, as the degree to which people attribute responsibility to the government may differ (Hobolt & Tilley, 2014). Finally, to evaluate the societal ramifications of our findings, it would be good to examine the impact of economic news and economic evaluations on actual voting *behavior*.

Because we employed a single country research design, the generalizability of the results is open for discussion. Several contextual factors might have influenced the outcomes. We discuss two obvious ones here. First of all, both the panel study and the experiment were conducted

during a period of economic recovery and relative economic growth. It remains an open question whether and to what extent these media effects are similar under different economic circumstances (see for example Lewis-Beck and Costa Lobo 2016), though recent research (Vliegenthart and Damstra, 2019; Jonkman, Boukes, and Vliegenthart, 2019) suggests that effects will be weaker when economic conditions worsen, since in such a context citizens do not need the media to tell them things go bad.

Second, regarding the political context, the Netherlands has a multi-party system with a coalition government, as most North-Western European countries have. The government always consists of multiple parties that share the responsibility for policy-making, which makes the direct attribution of responsibility for one specific policy issue (i.e. the economy) more difficult than in countries with single-party governments such as the U.S. In that sense, our study might provide a conservative test for the political effects of economic news. The fact that our results are largely in line with recent findings from Denmark, a country with a similar political-economic context (Van Dalen et al., 2018) suggests that they are not confined to the Dutch context - but more research is needed here. Hopefully, this study proves to be a fruitful point of departure for avenues of future research that examine the effects of the tone in economic news under different economic conditions and across political contexts.

Notes

1. National economic evaluations were measured by means of the question *Which team is expected to perform better economically, the Likud or the Labor team?* Personal economic evaluations were measured by means of the question *What is the level of your family's monthly expenditure compared with the average, which is … Israeli NIS?*
2. A team of 22 coders coded all news items. Regarding the coding of tone, inter-coder reliability measures (Lotus; Fretwurst, 2015) yielded satisfactory results (std. $\lambda = .72$).
3. While time intervals between waves are relatively limited, the data indicate considerable variation in economic perceptions and government support. On average, the absolute difference between government support in Wave 1 and 2 at the individual level is .90, with 61.1% of the respondents reporting a different score across waves. The absolute difference between Wave 2 and 3 is .78, with 55.0% reporting a different score. For economic perceptions, results are comparable: On average .67 absolute difference for personal expectations between Wave 1 and 2 (66.8% of the respondents having a different score), and .65 between Wave 2 and 3 (67.8% of the respondents having a different score). For national evaluations these scores are .87 (77.1%) and .79 (74.3%), respectively.

Disclosure statement

No potential conflict of interest was reported by the authors.

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