# Reinforcement of the Political Self through Selective Exposure to Political Messages

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Abstract

The idea that media users typically select messages to reinforce pre-existing views of issues and of the self has pervaded much communication research. Yet research that examines *effects* of such selective exposure is scarce. The current two sessions-experiment (n = 157) tackles this issue in the political context. The first session consisted of a computerized questionnaire about 12 political issue attitudes, political self-concept, and other variables. Accessibility data were collected based on response times. In the second session, participants browsed through an online magazine. Four issues chosen from the 12 issues were covered, with two articles featuring opposing perspectives. Selective reading was unobtrusively logged. Finally, a questionnaire repeated measures for attitudes and self-concept. Results show that media users prefer attitude-consistent over counter-attitudinal messages and that this preference strengthens the political self-concept through increased accessibility.


KEYWORDS: selective exposure, attitudes, self-concept, identity, media, political, accessibility

**Reinforcement of the Political Self through Selective Exposure to Political Messages**

The idea that individuals may prefer attitude-consistent messages has long been a

concern, as this pattern would hinder an informed opinion formation according to

democratic ideals. The term *selective exposure[1]* traditionally refers to this phenomenon

(e.g., Klapper, 1960; Lazarsfeld, Berelson, & Gaudet, 1944; Sears & Freedman, 1967).

More recently, the issue attracts new attention as the Internet and ever-rising media

offerings increase the available choices and make them easily accessible. Oftentimes,

selective exposure is viewed as a key factor in protecting existing predispositions and

favorable views of the self. Along these lines, it has been argued that the media mostly

have effects that reinforce the status quo, which may lead to underestimating the total

mass communication impacts (e.g., Klapper, 1960). Empirical evidence on these self-

reinforcement phenomena still defines a void (Slater, 2007). The current investigation

aims to shed more light on how exactly selective exposure bolsters media users'

preexisting views as well as their self-concept. In the following, we review research on

selective exposure to political information and its implications before we present

empirical tests of hypotheses derived from this review.

Most prior work has been concerned with *predictors* of selective exposure to

political messages. In spite of ample research on selective exposure as a preference for

attitude-consistent messages, usually embedded in the theoretical framework of cognitive

dissonance (Festinger, 1957), the debate on the coherence and strength of the empirical

evidence has been on-going for decades. A recent meta-analysis by D'Alessio and Allen

(2007) judged the evidence as consistent but weak. Yet it focused on post-decisional

dissonances, which are not the typical context of media use. With regard to selective

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exposure in an actual media use context, existent investigations are somewhat scarce

(AUTHORS, in press). Recent media use studies suggest that respondents do prefer

attitude-consistent messages or channels and avoid counter-attitudinal material (e.g.,

Garrett, 2006; Graf & Aday, 2008; Stroud, 2008). In our own work, we recently found

consistent and clear-cut evidence for selective exposure to attitude-consistent messages

across different indicators, different topics, and based on behavioral data. Before we

examine further consequences of such exposure in the current investigation, a replication

of these earlier findings will be pursued.

H1: Media users prefer attitude-consistent topic information over counter-

attitudinal information.

Research about the exposure bias toward attitude-consistent messages often

mentions problems for democratic ideals as a result of this bias. It may hinder an

informed opinion-formation, polarize the electorate, and reduce political tolerance (e.g.,

Bennett & Iyengar, 2008; Mutz, 2002; Sunstein, 2001). However, a research focus on

*outcomes* of selective exposure along these lines is scarce and faced with some

methodological issues. If selective exposure primarily fosters the status quo, then

evidence of such outcomes may be difficult to capture. After all, changes are more easily

demonstrated than stability, similar to testing H1 versus H0. Another methodological

concern is self-selection effect, which is usually considered a problem in determining

causation but is 'the nature of the beast' in this context.

Prior research has demonstrated differences between individuals with varying

levels of attitude-consistent and counter-attitudinal exposure. Mutz (2002) found that

having interpersonal networks with greater political disagreement resulted in a lower

voting intention at US presidential elections compared to individuals with more

homogeneous networks. Likewise, research by Brynin and Newton (2003) suggests that

citizens who read a newspaper in line with political party-preference are significantly

more likely to vote in general elections than those who read a paper that is incompatible

with their party preferences. Stroud (2007) found that those who viewed the anti-

President George W. Bush documentary "Fahrenheit 9/11" had significantly more

negative attitudes toward Bush compared to those who intended to view the film.

In other content contexts, reinforcement of the self has been suggested to be a

crucial motivation for selective exposure (Author et al., 2005, 2007, in press; Slater,

2007), for example, for gender identity or ethnic identity. In the context of political

messages in which the issue of selective exposure emerged as a communication research

topic, the political self as party partisan is of key interest (e.g., Lazarsfeld et al., 1944)

and highly relevant for voting outcomes. Cognitive dissonance theory has been guiding

much research in this area; yet it has not been connected with self-concepts in the context

of mass communication use.

However, within psychology, connections between cognitive dissonance theory

and self-concepts have been discussed extensively. For example, Aaronson (1968)

presented a self-consistency model that predicts that inconsistency of information or

actions with the self-concept will produce dissonance (instead of *any* inconsistent

cognitions). According to this view, individuals will prefer information that corroborates

their self-concept, even if the particular aspect is negative (e.g., someone who believes to

have poor math skills should prefer a poor math test result). Many other propositions

about the self exist that have also been linked to cognitive dissonance theory (e.g., self-

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verification theory by Swann, 1987; self-affirmation theory by Steele, 1988; the New

Look at dissonance theory by Cooper & Fazio, 1984), as reviewed by Harmon-Jones and

Mills (1999). It has been suggested that self-esteem is just a special case of an attitude

that happens to have the self as object of evaluation (DeMarree, Petty, & Brinol, 2007).

This matches Festinger's (1957) proposition that the magnitude of dissonance relates to

the importance attached to the involved cognitions—if the self is the object of

inconsistent cognitions, then dissonance will be intense, as the self is naturally of crucial

importance.

In light of these considerations, it is important to examine how selective exposure

to political media messages actually affects the political self in the sense of party

partisanship. Yet it is unlikely that such exposure will have a tangible impact in terms of

*change* in the sense of conversion (Klapper, 1960). In other words, after reading some

political messages even over an extended period, a conversion from Republican to

Democrat and vice versa will be quite rare. However, reinforcement could be detected

through implicit measures (Fazio & Olson, 2003) such as accessibility of party

partisanship as political self-concept (Markus, 1977). If a pre-existing political view or

view of the self becomes more accessible, this type of *change* could actually capture a

reinforcement effect. Accessibility measures are frequently used in attitude research (e.g.,

Fazio, 1995), but many parallels exist between attitude strength and strength of self-

concepts, in particular with regard to accessibility (DeMarree, Petty, & Briñol, 2007).

Thus the current study draws on accessibility of attitudes and of political

partisanship as the 'political self' to examine any impacts of selective exposure. Greater

accessibility of pre-existing attitudes is considered to indicate reinforcement. In this

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regard, the current approach relates to work on media priming and political priming in

particular (see for an overview Roskos-Ewoldsen, Roskos-Ewoldsen, Carpentier, 2009),

even though this body of literature utilizes forced-exposure designs only. Priming

research studies short-term impact of exposure to the media on judgments and behaviors.

These impacts are said to result from increased accessibility of constructs primed by the

media message. It is also argued that priming can foster chronic accessibility of

constructs portrayed in the media and thus produce long-term shifts in information

processing. Hence, as media recipients attend selectively to messages, they can employ

them to prime themselves in line with any ideas they value and thus *reinforce* them. The

cognitive processes that then evolve, once the message selection has occurred, can be

described along the lines of network models of memory or mental models (Carpentier,

Roskos-Ewoldsen, & Roskos-Ewoldsen, 2008).

On a cautionary note, the operationalization of reinforcement through

accessibility may not be perfect, as this implicit measure that may be subject to other

influences in addition to the targeted reinforcement effect. From an information

processing perspective, it is possible that additional information received during selective

exposure, even if consistent with preexisting attitudes or partisanship and thus

reinforcing, instigates elaborations and reorganization of political knowledge and

associated viewpoints. In other words, even exposure to attitude-consistent information

could reduce accessibility, as recipients aim to incorporate the newly received

information into their mindset. Such elaboration and knowledge reorganization would

reduce accessibility of one's attitudes and political self-concept, at least in the short run.

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Despite this concern, accessibility of attitudes and self-concepts appears very suitable to

operationalize a phenomenon as subtle as reinforcement.

        Thus the current study draws on accessibility of attitudes and of political

partisanship as the 'political self' to examine reinforcement impacts of selective

exposure. Theoretical notions about cognitive consistency motivations (outlined above)

imply that media users will prefer attitude-consistent messages in order to foster attitude

strength. Such reinforcement, if successful, should be reflected in increased accessibility

of the related attitudes. Similarly, a preference for political information that is consistent

with one's political partisanship should serve the reinforcement of one's political self-

concept. If successful, the reinforcement would be reflected in greater accessibility of the

political self-concept. The suggested pattern should apply in particular to topics for which

the political parties have clearly different stances and if individuals' topic attitudes

converge with parties' stances. The current study aims to demonstrate these patterns

based on the hypotheses stated below.

    H2:    Selective exposure to attitude-consistent messages increases accessibility of

            corresponding attitudes.

    H3:    Selective exposure to attitude-consistent political messages increases

            accessibility of the political self.

Method

*Overview*

    An experiment with two sessions, with complete data from both sessions for 157

participants, was conducted in a lab and online (n = 66/91). Table 1 lists the elements of

the experimental procedure. In the first session, participants responded to a computerized

questionnaire about 12 political issue attitudes, attitude certainty, attitude importance, political self-concept, political interest, and news use habits. Accessibility data were collected based on attitude response times. In the second session, approx. four weeks later, participants were asked to browse through an online news magazine. Four policy issues (target issues) chosen from the 12 issues were covered by the eight displayed articles, with two articles featuring opposing topic perspectives. Selective exposure time to specific news reports was unobtrusively logged by software. After the browsing period, participants completed a questionnaire that repeated measures for attitudes and political self-concept.

*Respondents*

Participants were recruited from undergraduate communication classes at a large Midwestern university and received extra credit for participation. The sample consisted of 157 complete data sets with data from both sessions (after excluding 14 individuals that had clicked on one or less of the available articles and thus did hardly engage in news reading). The two methods of data collection, lab and online (n = 66/91), led to different gender proportions in the two samples (43% males in the lab sample and 25% males in the online sample). Age did not differ by data collection method and was 21.4 (*SD* = 2.6) on average.

*Procedure*

The main experiment consisted of two sessions that were either conducted in a computer lab or online. The first data collection part was performed 01/23/08-02/01/08, the second 02/20/08-02/29/08, hence during the onset of the presidential primaries 2008.[2]

In the following, we describe the lab procedure and then point out the differences of the

online procedure.

*Lab procedure.* Participants signed up for session times upon instructors' in-class

invitation to earn extra credit. The lab sessions were both run in a facility with five

identical personal computers in separate rooms. When arriving for the first lab session,

the respondents received general verbal instructions that were then reiterated via

computer screen. Respondents were led to individual research rooms and started the

computerized session, which was programmed with MediaLab and DirectRT. The

questions (displayed on separate screens) pertained to attitudes, attitude certainty, attitude

importance, demographics, self-descriptions including politically relevant adjectives,

political interest, and news use habits; additional variables were derived from these

responses (see details in the sections about measures). To link the data from the two

sessions, the last four  digits of participants SSNs were recorded, which ostensibly served

as backup for proper recording of extra credit.

About four weeks later, students recruited from the same classes were invited to the

computer lab again, yet without knowing the connection between the two sessions. After

the general greeting, they were instructed as follows: "In the following, you will see a

test-version of the magazine. Please browse through to gain an impression of the articles.

The scheduled time does not allow reading all articles. So please read what you find

interesting, just as you normally would. There is no assigned number of articles that you

should read, and you don't have to read the articles as a whole. After the scheduled

browsing time is over, a questionnaire will upload automatically, and you will be asked

about your impressions of the articles."

Then participants were asked to start the computerized experiment (programmed

with MediaLab, DirectRT, and Authorware). The first instruction page presented the

same information as the verbal instruction; the online magazine was displayed for 5

minutes, until a news evaluations questionnaire was uploaded to provide closure for the

browsing part. These questions asked how "credible/important/biased/

interesting/timely/well-written/relevant" the articles were; the items were rated on 7-point

scales, ranging from "not at all" to "extremely." Finally, the parts of the first session

about attitudes (dichotomous and Likert measures) and self-descriptions were essentially

repeated (see details in sections on independent and dependent measures).

*Online procedure.* For the online procedure, potential participants received an email

invitation from their instructors with the same information as featured in the in-class

announcement for the lab procedure. They were informed of some technical

requirements, as the online procedure was set up so that a Windows PC with an Internet

browser (typically Internet Explorer) had to be used and a web-player had to be

downloaded to execute the application programmed in Authorware7. The first screen

page instructed the participants that the session required full attention and allowed them

to quit if they wanted to take the session at a later point. The specific instructions were as

follows.

> "Thank you for accessing this research application. Before you start, please be
> informed that it is absolutely crucial that you are not distracted while taking
> the session. Distraction will be reflected in the data and will result in unusable
> scores. The session will take about 10 minutes. If this is not a good time for
> you to take the session, please return later. *<Press "X" to exit and return
> later>* If you'd like to proceed now, please ensure that you won't be distracted
> (e.g, turn off your cell phone/ TV, shut the door). *<Press SPACEBAR to
> continue>"*

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The rest of the procedure was equivalent to the lab procedure. The Authorware

application mimicked all the details of the look from the MediaLab and DirectRT

application used in the lab procedure and also recorded response times (regarding

reliability of such measures recorded in Authorware, see Tew and McGraw, 2002). For

the second session, participants received another email invitation and completed the same

procedure as in the lab online, set up in Authorware. The only difference was that they

were again informed that the session required full attention, similar to the instruction

quoted above, yet with an announced time span of 15 min.

*Measures pertaining to Attitudes, Self Concept, and other Recipient Characteristics*

*Attitude (dichotomous).* Before providing attitude data in both sessions, participants

completed a practice trial to become familiar with the task and were instructed as follows:

> The first task serves to show you how things work and to familiarize you
> with the procedure. In this task words will be presented for you to classify
> into groups—positive and negative adjectives. This task requires that you
> classify items as quickly as you can while making as few mistakes as
> possible. Going too slow or making too many mistakes will result in an
> uninterpretable score.
> Press one of two keys to categorize the displayed word.
> The key with the symbol "Z" indicates NEGATIVE adjective.
> The key with the symbol "/" indicates POSITIVE adjective.
> It works best to keep one index finger above both these keys for quick
> responses.

Six adjectives (marvelous, superb, pleasure, painful, terrible, awful) showed up on

each new screen in a random sequence. On each screen, the adjective appeared in the

center with "Negative" and "Positive" at the left and right bottom respectively. Once a

participant pressed "Z" or "/", the procedure continued to the next screen. A parallel

practice trial was used in the second session, with insects and flowers to be categorized

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(tulip, bee, ant, orchid, beetle, daisy, with "Insect" and "Flower" shown at the left and

right bottom of the screen respectively.)

For the actual dichotomous measurement of attitudes, eight political filler issues

were presented first in randomized sequence and then the four target issues relevant for

the later exposure measurement were displayed (see Table 2 for the target issues) in

randomized sequence, with three words for each topic. Respondents were asked to choose

either "oppose" or "support" by pressing corresponding keys. The specific instruction

over several screen pages was as follows.

> In the following, you will be asked about topics where people can have
> very different opinions. Please keep in mind that there are no 'right' or
> 'wrong' answers for these questions and that we are only interested in your
> personal views and various aspects of your opinion.
> All collected information is anonymous. Only information that cannot
> be linked to you as a person will be collected.
> We are interested in your spontaneous reactions. Thus please answer
> each question as quickly as possible, but not so quickly that you might make
> errors.
> Press one of two keys to indicate whether you support or oppose a policy.
> The key with the symbol "Z" indicates that you oppose a policy. The key
> with the symbol "/" indicates that you support a policy. Please keep your
> index finger above these two number keys to increase response speed.
> Again, please answer each question as quickly as possible, but not so
> quickly that you might make errors.

*Attitude accessibility.* The attitude measures in dichotomous format also served to

gather accessibility data through response times for indicated support regarding each

political issue. The computerized procedure recorded the response latency as a measure

of attitude accessibility (Fazio, 1995).

*Attitude (Likert scale).* In the first session, respondents were asked to rate how

strongly they oppose or support the policies on a 5-point Likert scale, with "strongly

support/somewhat support/neither support nor oppose/somewhat oppose/strongly

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oppose" as response options. In the second session, respondents were asked to rate how

strongly they oppose or support the policies on a 6-point Likert scale, with *strongly*

*support/overall support/rather support/rather oppose/overall oppose/strongly oppose* as

response options.

*Attitude extremity.* An attitude extremity measure was derived from the attitude

Likert scale from the first session, with "strongly support" and "strongly oppose" being

coded as 3, "somewhat support" and "somewhat oppose" coded as 2, and "neither

support nor oppose" coded as 1.

*Attitude certainty.* Participants indicated in the first session how certain they were

about their opinions towards the policies on a 5-point Likert scale, with "not at all

certain/somewhat certain/fairly certain/very certain/extremely certain" as response

options.

*Attitude importance.* Participants were asked in the first session how important the

issues were to them personally on a 5-point Likert scale, "not at all important/somewhat

important/fairly important/very important/extremely important."

*Political self.* In both sessions, self-descriptions were collected. The approach was

in line with procedures by Markus (1977) and more recently, in communication research,

Comello & Slater (2009). The instructions were displayed over several screens as

follows:

> In the following, you will be asked about yourself based on
> characteristics that may or may not apply to you. We'd like to get your
> spontaneous responses, so please press the response key quickly to indicate
> whether a characteristic applies to you or not.
>      The key with the symbol "/" indicates that the characteristic applies to
> you; it equals "ME". The key with the symbol "Z" indicates that the
> characteristic does not apply to you; it equals "NOT ME".

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It works best to keep one index finger above both these keys for quick
responses.

Then 24 adjectives concerning personal characteristics were displayed on separate
screens, with the adjective displayed in the center, and "Me" and "Not me" shown at the
right and left bottom of the screen respectively. Once a participant pressed "/" or "Z", a
new screen was automatically uploaded. First, 16 filler items such as "moody",
"sympathetic," and "imaginative" were presented in a randomized sequence. Then the
four target adjectives "conservative," "liberal," "Republican", and "Democrat",
embedded in four other politically relevant descriptions (e.g., "patriotic"), were shown in
randomized order. The response times in this task were recorded in milliseconds.

*Political self accessibility.* Political self accessibility was derived from averaged
response times for the four target adjectives.

*Political interest*. Two questions in the first session were concerned with political
interest and asked how closely respondents followed news about government and public
affairs and news about a recent election on a 4-point scale, "very closely/not too
closely/somewhat closely/not at all closely."

*News use habits*. Participants rated their news use frequency in the first session for
online news, daily newspaper, TV news, political websites, and talk/comedy shows about
news and politics on a 6-point scale, "every day/several times a week/once a
week/several times a month/once a month/less often."

*Experimental Internet Magazine*

*Display of available articles.* The experimental Web magazine was programmed
with Authorware specifically for this study. This online news magazine had a similar
look and feel to popular news magazines currently on the Internet (see Figure 1). A

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masthead of the name and logo of the experimental platform—"American's national

forum—online opinion"—was displayed across the top of the Web site. In addition, a

navigation bar was placed on the left-hand side of the page. Although it was deactivated,

the displayed navigation bar contained newspaper section headings such as Economics,

Science, and so forth, which would be commonly found on a news site. The main frame

initially contained an overview, which listed news leads for all available articles in two

columns.

The overview page (see Figure 1) showed eight news leads that each contained a

headline, a news lead, and a  hyperlink to access the actual article. The news leads were

about the same length with 24 to 28 words. The positions of news leads on the overview

page were randomized for each participant to prevent position effects. However, the two

articles about the same issue were never displayed next or above each other. The

respondents made their reading selections by clicking on the hyperlinks to articles,

scrolling through the selected articles and reading as much of them as they cared to,

clicking to return to the overview, selecting other articles (or returning to the abandoned

ones), and so forth, until the end of the reading period. Whenever a participant accessed

or exited an article page via hyperlinks, Authorware logged the activity to accumulate

selective exposure times.

*News leads and article texts.* The news leads and articles were adopted from an

earlier study (Authors, in press). For this prior study, a pretest of news leads had been

conducted (with participants from the same population as used for the current study) to

select two opposing leads that were perceived as different in political stance while being

equally interesting. These criteria led to the selection of the four target issues. A separate

stimuli test with participants from the same population had established that (when

controlling for readers' attitudes), text pairs for all topics did not differ significantly for

level of interest.

The four policy issues and the eight headlines of the displayed articles were

(a)"Universal health care", "Personalized health coverage"; (b)"Firearm threat", "Self-

defense rights"; (c)"Cruelty of pro-choice", "Abortion is pro-life"; (d)"Increase minimum

wage", "Wage raising hurts." The eight employed articles were pulled from partisan and

lobbying Web sites of heritage.org, nraila.org, and others. All articles were minimally

edited, essentially shortened, to equalize their length to about 705—719 words ($M = 716$,

$SD = 5.2$). Readability scores within each pair of articles were comparable, based on

Flesch reading ease scores (which can range between 0 and 100): 36 and 36 for minimum

wage; 33 and 37 for health care; 53 and 47 for gun control; 56 and 51 for abortion. Sans-

serif typeface Verdana was used for all articles. Regular scrolling allowed access to the

full text of the articles.

The articles not only used rhetoric but featured ample topic-related details to make a

case regarding the issue in question, such as statistics, dates, budgets, descriptions of

policies in specific US states or abroad; none of the articles employed exemplars. Sources

mentioned in the articles often came for research circles (researchers, institutions,

journals) or represented other fairly neutral institutions such as the Census Bureau, the

World Health Organization, or FBI crime reports. However, lobbying sources such as the

*Center to Prevent Handgun Violence* or a union movement *America Needs a Raise* were

also referred to. In the context of minimum wage, one article mentioned both Democrats

and Republicans in the first article paragraph, whereas the other article talked about a

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Congress bill in the middle of the text (after 316 body text words) and used the word

"Democrats" three times in this paragraph. It is worthwhile to note these details in order

to highlight that the references to the Republican and the Democrat party carried

negligible weight in the presented text material. Hence, it is very unlikely that any

increased accessibility of political partisanship could result from simple priming instead

of the suggested attitude-related reinforcement and the resulting political self-concept

reinforcement.

*Selective Exposure Measures*

The software application tracked participants' exposure in seconds by logging

every hyperlink use. Exposure was operationalized as article choice (clicked on hyperlink

leading to article or not) and reading time in seconds. More specifically, the key

dependent measure was exposure to news articles with either attitude-consistent or

counter-attitudinal perspective. For each political issue, the dichotomous measurement of

attitudes from the first data-collection session was employed to code articles and

exposure to them as attitude-consistent or counter-attitudinal on an individual basis. The

following measures were generated from hyperlink clicks for individual articles to test

the hypotheses: selection of (a) attitude-consistent articles and (b) counterattitudinal

articles, exposure time in seconds dedicated to (c) attitude-consistent articles and (d)

counter-attitudinal articles. For a-d, measures were generated for each specific article but

also accumulated selections and exposure times.

<div align="center">Results</div>

*Preliminary Analyses*

*Respondent characteristics.* A condensed measure was created for political self-concept. After reversing two of the four target self-descriptions, the reliability of the responses for these yielded a Cronbach's alpha of .86. Hence, the scores could be condensed as a mean index (higher scores represented a more liberal orientation). Based on this measure 46 individuals identified themselves consistently as Republican/conservative, and 17 leaned toward this category but gave one inconsistent response. Fifty individuals identified themselves consistently as Democrat/liberal, and 20 leaned toward this category with one inconsistent response out of four. Twenty-one individuals' responses were inconsistent to the effect that they could not be classified.

An index for political self accessibility was derived from averaged response times for the four target self-descriptions. The average response time was 1326 ms ($SD = 485$). Due to the nature of the index (in contrast to a scale), a reliability score was not computed; accessibility is commonly measured with response time for just one item, which does not allow computing reliability scores in the first place[3]. However, greater accessibility was associated with greater consistency in the responses as explained in the prior paragraph ($r = .27$, $p = .002$) and lower within-subject standard deviation ($r = .22$, $p = .012$), which speaks to concurrent validity of the measure.

The reliability for the news use habits items was .67 and thus sufficient to create a news use frequency index. The political interest index consisted of the mean of two items that were correlated at $r = .66$ ($p < .001$). News use and political interest were correlated at $r = .55$ ($p < .001$).

*Descriptive statistics for attitudes*. On average, participants indicated that they supported an increase of the minimum wage and favored universal health care as well as

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stricter gun control; opinions on abortion were somewhat more diverse (see Table 2).

Participants' certainty of their abortion attitude was significantly higher than for

minimum wage ($t(151) = 2.0$, $p = .050$) and gun control ($t(151) = 3.8$, $p < .001$). Gun

control was significantly less important to participants than universal healthcare ($t(151) =$

$2.8$, $p = .006$) and abortion ($t(151) = 3.4$, $p = .001$); the minimum wage issue was less

important than abortion ($t(151) = 2.1$, $p = .038$).

*Convergence of attitudes with political party stances.* For the examination of H3,

the assumption that individuals' topic attitudes converge with parties' stances regarding

these topics is of crucial importance. After all, it is possible that someone who thinks of

himself/herself as a Republican favors pro-choice abortion policies nonetheless. In that

case, attitude-consistent exposure for this particular topic could actually undermine

partisanship as political self-concept. However, individuals' attitudes for the four target

topics were generally highly consistent with the viewpoints supported by the favored

party. This was demonstrated by an inter-item reliability analysis that employed the

dichotomous attitude responses for the four issues (which were all worded in pro-liberal

terms) and the four target adjectives for political self (two of them recoded). Cronbach's

alpha was .79 for this analysis.

*Selective exposure.* As mentioned above, 14 individuals had been excluded from

the sample as they had clicked on one or less of the available articles and thus did not

appear to have engaged in news reading. For the remaining sample, participants spent 61

seconds ($SD = 55$) on the overview page that displayed the news leads. The minimum

time for the overview page was 7 seconds, the maximum 232 seconds. On average,

participants clicked on 3.5 articles ($SD = 1.9$), with a range from zero to eight. On

average, participants spent 98 s (*SD* = 82) on the topic of abortion, 54 s (*SD* = 64) on

gun-related articles, 47 s (*SD* =52) on texts pertaining to the minimum wage, and 40 s

(*SD* = 60) on articles about health insurance. With regard to potential multicollinearity

issues in later regression analyses, it is relevant to note that the selective exposure

indicators (as described per a-d under "Dependent Measures") were only moderately

correlated, with significant correlations ranging from |.19| to |.59|.

*Comparison of lab and online sample*. Extensive tests were run to detect if the

two data collection approaches yielded differences in the variables of interest. No

differences were found for news use habits, political interest, attitudes (baseline), attitude

accessibility (baseline), attitude importance, attitude extremity, political self (baseline),

and political self accessibility (baseline) (*p* = .20 for one variable, *p* > .43 for the other

characteristics). The only difference worth mentioning was a generally higher attitude

certainty reported in a lab setting (*M* = 4.25 versus 4.02, *SD* = .6 versus .8), *t*(169) = 2.3,

*p* = .026.

*Impact of Attitudes on Selective Exposure*

Participants clicked on 2.0 (*SD* = 1.0) articles that featured attitude-consistent

views and on 1.7 articles (*SD* = 1.1) with a counter-attitudinal stance. This difference was

significant in an ANOVA with the article choices as repeated measures (*F*(1, 157) = 10.6,

*p* < .001, $\eta^2$ = .063) and data collection method as between-factor (*n.s.*). For exposure

times, participants spent 139 seconds on average (*SD* = 74) on attitude-consistent

information and 95 seconds (*SD* = 70) on counter-attitudinal messages. The difference

was again significant (*F*(1, 157) = 14.6, *p* < .001, $\eta^2$ = .085), while the data collection

method was irrelevant (*n.s.*) when applying the same ANOVA model to exposure times.

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The ANOVA model was extended by using the four topics as another within-factor. Both the topic dimension ($F(3, 471) = 15.5$, $p < .001$, $\eta^2 = .090$) and the dimension of the attitude-consistent versus counter-attitudinal choices ($F(1, 157) = 10.6$, $p = .001$, $\eta^2 = .063$) had significant impact on selections. The same ANOVA design with the same within-factors but exposure time as repeated measures yielded that, for amount of exposure, both topic ($F(3, 471) = 17.9$, $p < .001$, $\eta^2 = .102$) and the contrast of attitude-consistent and counter-attitudinal ($F(1, 157) = 14.6$, $p < .001$, $\eta^2 = .085$) mattered. More importantly, both ANOVAs did not yield an interaction ($p > .76$) between the two within-factors, which shows that the preference for attitude-consistent information was uniform and applied regardless of topic. These findings support H1. Method of data collection had been included as between-group factor but did not show an impact (*n.s.*).

Finally, we compared for how many topics participants accessed through (a) only attitude-consistent messages, or (b) only counter-attitudinal messages, or (c) both types of messages. On average, participants looked at .98 topics (SD = .92) only based on attitude-consistent information. Both sides were viewed for 1.06 (SD = 1.05) topics. Only counter-attitudinal exposure for a topic was less common, with .67 topics on average (SD = .72); the difference was significant compared to (a) and (b) in paired $t$ tests ($t(158) = 3.1/3.5$, $p < .002$).

*Implications of Selective Exposure on Attitude Accessibility*

Examinations of selective exposure effects on attitude accessibilities were conducted for issue-specific accessibility and across the four issues (condensed by averaging response times). The regression analyses employed exposure times for attitude-consistent and counter-attitudinal messages, attitude importance and certainty, as well as

a variable that indicated if an attitude change had occurred when considering the

dichotomous attitude measures from the first and the second research session[4], finally the

base-line response time and mode of data collection as controls.

These analyses did not yield consistent effect patterns. No selective exposure

effects were found for attitude accessibilities regarding healthcare and abortion. For gun

control, longer exposure to counter-attitudinal content increased the response time for the

corresponding attitude (beta = .17, $p$ = .040). For minimum wage, attitude-consistent

exposure tended to reduce the response time (beta = -.13, $p$ =.095). Details are reported in

Table 3. No exposure effects on accessibility were found for the condensed variables

across issues.

*Implications of Selective Exposure on Political Self Accessibility*

Effects of selective exposure on the accessibility of political self-concept were

examined through three regression analyses, using (1) article choices for attitude-

consistent or counter-attitudinal messages, (2) exposure times for attitude-consistent or

counter-attitudinal messages, and (3) number of topics accessed for attitude-consistent or

counter-attitudinal message *only*. Results of these three analyses are summarized in Table

4. The 21 participants who did not clearly identify themselves as partisan of a political

party were excluded from this analysis. The following variables served as controls: data

collection mode, base line accessibility of the political self, average attitude importance,

average attitude certainty, average attitude extremity, news use habits, political interest,

political self as political partisanship, and how many of the four topics were accessed.

The regression model with choices of counter-attitudinal and attitude-consistent

messages as predictors yielded a significant impact of frequency of attitude-consistent

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message choices on the response times for political self descriptors in the second session

(*beta* = .33, *p* = .003). Hence, the more often attitude-consistent content was clicked on,

the faster participants responded to politically relevant self-descriptions. The only control

variable that had significant impact was the baseline accessibility of the political self (see

Table 4).

A parallel analysis was run using exposure *times* for counter-attitudinal and

attitude-consistent messages as predictors. The more time participants spent on counter-

attitudinal content, the slower they were when responding to politically relevant self-

descriptions (*beta* = -.24, *p* = .027). For the control variables, data collection mode was

again irrelevant (*n.s.*) but response times for political self descriptors from the first

session had, of course, a significant impact (see Table 4).

To look into effects of different exposure constellations, such as reading only the

attitude-consistent message on a topic or only the counter-attitudinal text on an issue, an

additional analysis was performed. It utilized the number of topics for which participants

had accessed only attitude-consistent or only counter-attitudinal messages. These

indicators could vary between zero and four. It revealed that reading about more topics—

and maybe none in depth—led to greater accessibility of the political self concept (beta =

.18, *p* = .034). It also demonstrated that more reading topics with counter-attitudinal

exposure only, the lower the accessibility of the political self (beta = -.24, *p* = .003). As

in the prior analyses, the baseline accessibility had a significant impact, whereas data

collection mode did not (see Table 4).

Discussion

It has long been argued that much of media use is motivated by an interest to

bolster existing attitudes, including attitudes regarding the self. The present findings

replicate evidence (see Authors, in press) that media recipients prefer messages in line

with pre-existing political attitudes over counter-attitudinal content. This impact was

again found to apply regardless of political issue and media use context (lab situation

versus individual online use context).

More importantly, selective exposure to attitude-consistent messages in general

increased accessibility of the political self-concept, whereas exposure to counter-

attitudinal messages decreased it. This is an impressive corroboration that selective media

exposure allows bolstering the self-concept. This phenomenon is generally difficult to

capture, as it represents stability and reinforcement but not change in the sense of

conversion. However, by looking at reinforcement as a change and increase of

accessibility, empirical demonstration was successful.

Yet, evidence for reinforcement of specific preexisting attitudes through selective

exposure was inconsistent. We believe that the information related to specific topics may

occasionally have produced longer response times and thus lower accessibility as

participants were trying to integrate the information received during exposure into their

views. The positive impact of number of accessed topics, with more topics signaling

more superficial reading, on accessibility of the political self concept speaks for that

notion. Or participants may have encountered additional issue information in the media

between the first and the second session (during the onset of the presidential primaries in

early 2008). As a result, even if a preference for attitude-consistent messages is exhibited,

this may encourage recipients to reconsider an issue when asked about their views right

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after exposure. Hence, attitudes could be reinforced in the long run, but the measures

collected right after exposure were not suited to show that. Yet the political self-concept,

which can be seen as a much broader attitude regarding the self, was strengthened by

attitude-consistent selective exposure for particular issues related to this self-concept

domain; it was thus apparently not affected by processing of specifics.

We have focused on one particular domain of the self-concept—the political self.

It is interesting that the self-bolstering pattern could be observed for an identity facet that

appears to have comparatively low importance for self descriptions. Smith (2007) reports

that political party preference ranked lowest by far (4%) when people were asked to

select the three most important out of ten categories to describe who they are. Obviously,

facets of the self can be rendered salient by the given context (e.g., Markus & Wurf,

1987), which was a political messages web site in the current study. Yet it is likely that

greater impacts on media use will occur for aspects of the self that are generally more

accessible.

Gender, for instance, is generally considered to be crucial for self-perceptions and

even general psychological adjustment (e.g., Oheron & Orlofsky, 1990). In line with the

idea of self-bolstering media use, children have long been said to prefer same-sex media

characters (e.g., Hoffner, 1996; Author et al., 2005), which most likely serves a

motivation to develop a gender-based identity in the first place. Further examples include

women's preference for relationship issues and melodramatic fiction on the one hand and

men's preference for sports and other competition-related content and violent

entertainment on the other hand (e.g., Authors, 2007; Oliver, Weaver, & Sargent, 1998).

Most likely without any awareness, media users may strive to sustain internalization of

gender-typed norms to match those expectations. Experimental evidence for these selection patterns and subsequent impacts on behavior have been provided by Authors (2006). But clear indications of selective exposure effects on gendered self-perceptions define a void in existing research.

Obviously, the current analysis leaves many questions unanswered regarding selective media exposure in the interest of reinforcement of the self. As the current study employed a student sample, which presents problems to the generalizability, additional research with a more diverse sample is in the making. This follow-up work might also reveal to what extent the political climate and context of the data collection time period affects selective exposure and its consequences in any way. Furthermore, how long do these self-reinforcement effects last? What ceiling and floor effects exist? In other words, can self-concepts be too strong or too weak to evoke reinforcing selective exposure? Do the patterns demonstrated for the political self also affect categories that relate to ethnicity, family status, occupation, age, etc. that have been found to be more salient than political categories (Smith, 2007)?

Reinforcement of the self may well be the type of effect that media users seek most frequently and habitually. If individuals strive for self-consistency and stability, even though their selves are dynamic and subject to continuous fluctuation and adaptation (e.g., Markus & Wurf, 1987), media use may offer great tools for 'consistency maintenance' (Ibid., p. 300). This motivation might be the origin of those overwhelmingly strong media use patterns that have become 'common sense' knowledge about media preferences. On the other hand, media use may not only serve 'self maintenance' but also render self facets salient as deemed useful per situational

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circumstances. The complexity and dynamics of the self may be crucial for many media

use situations, though difficult to tackle as a psychological process.

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References

Aronson, E. (1968). Dissonance theory: Progress and problems. In R. P. Abelson, E.

Aronson, W. J. McGuire, T. M. Newcomb, M. J. Rosenberg, & P. H.

Tannenbaum (Eds.), *Cognitive consistency theories: A source book* (pp. 5-27).

Skokie, IL: Rand McNally.

Aronson, E. (1969). The theory of cognitive dissonance: A current perspective. In L.

Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 4, pp. 1-34).

Orlando, FIL Academic Press.

Bennett, W. L., & Iyengar, S. (2008). A new era of minimal effects? The changing

foundations of political communication. *Journal of Communication, 58*, 707–731.

Brynin, M., & Newton, K. (2003). The national press and voting turnout: British general

elections of 1992 and 1997. *Political Communication, 20 (1),* 59—77.

Carpentier, F. D., D. R. Roskos-Ewoldsen, B. B, Roskos-Ewoldsen (2008). A test of the

networks models of political priming. *Media Psychology, 11*, 186-206.

Comello, M. L. G., & Slater, M. D. (2009). *The effects of drug-prevention messages on

the accessibility of identity-related constructs.* Health Communication Division,

59th Annual International Communication Association Conference, May 21-25,

2009, Chicago, IL.

Cooper, J., & Fazio, R. H. (1984). A new look at dissonance theory. In L. Berkowitz

(Ed.), *Advances in experimental social psychology 17: Social psychological

studies of the self* (pp. 229-262). San Diego, CA: Academic Press.

D'Alessio, D., & Allen, M. (2007). The selective exposure hypothesis and media choice

processes. In R. W. Preiss, B. M. Gayle, N. Burrell, M. Allen, & J. Bryant (Ed.),

Reinforcement of Self & Selective Exposure                                        29

Mass media effects research: Advances through meta-analysis (pp. 103-118).

Hillsdale, NJ: Lawrence Erlbaum Associates.

DeMarree, K. G., Petty, R. E., & Briñol, P. (2007). Self and attitude strength parallels:

Focus on accessibility. *Social and Personality Psychology Compass*, *1(1),* 441-

468.

Fazio, R.H., & Olson, M. A. (2003). Implicit measures in social cognition research: Their

meaning and use. *Annual Review of Psychology, 54*, 297-327.

Fazio, R. H. (1995). Attitudes as object-evaluation associations: Determinants,

consequences, and correlates of attitude accessibility. In R. Petty & J. A. Krosnick

(Eds.), *Attitude strength: Antecedents and consequences* (*p*p. 247-282). Hillsdale,

NJ :NJ: Lawrence Erlbaum Associates.

Federal Reserve Board (2008, Dec 16). Open market operations [WWW document].

Retrieved February 28, 2009, from

*http://www.federalreserve.gov/fomc/fundsrate.htm*

Festinger, Leon (1957). *A theory of cognitive dissonance*. Stanford/CA: Stanford

University Press.

Garrett, R. K. (2006). Avoiding political difference: characteristics associated with

reduced exposure to opinion-contrary information," paper presented at the

National Communication Association meeting, San Antonio, Texas, November

16–19.

Graf, J., & Aday, S. (2008). Selective attention to online political information. *Journal of

Broadcasting & Electronic Media*, *52*(1), 86-100.

Harmon-Jones, E., & Mills, J. (1999). *Cognitive dissonance: Perspectives on a pivotal theory in social psychology*. Washington, DC: American Psychological Association.

Hoffner, C. (1996). Children's wishful identification and parasocial interaction with favorite television characters. *Journal of Broadcasting & Electronic Media, 40*(3), 389-403.

Klapper, J. T. (1960). *The effects of mass communication*. New York, NY: Free Press.

Lazarsfeld, P. F., Berelson, B., & Gaudet, H. (1944). *The people's choice. How the voter makes up his mind in a presidential campaign*. New York: W. Morrow and Co.

Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology, 35*, 63-78.

Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual Review of Psychology, 38*, 299-337.

Mutz, D. C. (2002). The consequences of cross-cutting networks for political participation. *American Journal of Political Science, 46 (4),* 838-855.

O'Heron, C. A., & Orlofsky, J. L. (1987). Stereotypic and nonstereotypic sex role trait and behavior orientations: Implications for personal adjustment. *Journal of Personality and Social Psychology, 52*(5), 1034-1042.

Oliver, M. B., Sargent, S. L., & Weaver, J. B., III (1998). The impact of sex and gender-role self perception on affective reactions to different types of film. *Sex Roles*, *38*, 45-62.

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Pearson Education, publishing as Infoplease (n.d.). 2008 current events [WWW

document]. Retrieved February 28, 2009, from

*http://www.infoplease.com/world/events/2008/*

Roskos-Ewoldsen, D. R., Roskos-Ewoldsen, B. B., Carpentier, F. D. (2009). Media

priming: An updated synthesis. In J. Bryant & M. B. Oliver (Eds.), *Media effects:*

*Advances in theory and research* (pp. 74-93). New York, NY: Routledge.


Sears, D. O., & Freedman, J. L. (1967). Selective exposure to information: A critical

review. *Public Opinion Quarterly*, *31,* 194-213.

Slater, M. D. (2007). Reinforcing spirals: The mutual influence of media selectivity and

media effects and their impact on individual behavior and social identity.

*Communication Theory, 17*(3), 281-303.

Smith, T. W. (2007). Social identity and socio-demographic structure. *International*

*Journal of Public Opinion Research, 19*(3), 380-390.

Steele, C., M. (1988). The psychology of self-affirmation: Sustaining the integrity of the

self. In L. Berkowitz (Ed.), Advances in experimental social psychology 21:

Social psychological studies of the self (pp. 261-302). Academic Press, San

Diego, CA.

Stroud, N. J. (2007). Media effects, selective exposure, & *Fahrenheit 9/11*. *Political*

*Communication, 24*(4),. 415–432.

Stroud, N. J. (2008). Media use and political predispositions: Revisiting the concept of

selective exposure. *Political Behavior, 30*(3), 341-366.

Sunstein, C. R. (2001). *Republic.com.* Princeton: Princeton University Press.

Swann, W. B. (1987). Identity negotiation: Where two roads meet. *Journal of Personality*

    *and Social Psychology, 53*(6), 1038–1051.

Tew, M. D., & McGraw, K. O. (2002). The accuracy of response timing by Authorware

    programs. Retrieved October 24, 2008, from

    *http://psychexps.olemiss.edu/Scrapbook/Timing_2002.pdf*

Zillmann, D., & Bryant, J. (1985). *Selective exposure to communication*. Hillsdale, NJ:

    Lawrence Erlbaum Associates.

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Table 1

*Overview of Experimental Computerized Procedure (administered in a lab or online)*

|                        | First Session | Second Session |
| ---------------------- | :-----------: | :------------: |
| News Browsing          |       -       |       X        |
| Practice Trial         |       X       |       X        |
| Attitude (dichotomous) |       X       |       X        |
| Attitude (Likert)      |       X       |       X        |
| Attitude Certainty     |       X       |       -        |
| Attitude Importance    |       X       |       -        |
| Demographics           |       X       |       -        |
| Political Self         |       X       |       X        |
| Political Interest     |       X       |       -        |
| News Use Habits        |       X       |       -        |

*Note*: Attitude Likert scale was a 5-point scale in the first session and a 6-point scale in

the second session.

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Table 2

*Descriptive Statistics of Attitude Measures (n = 152)*

|  | Attitude (1=support or 2=oppose) | Attitude (1=support, 5=oppose) | Certainty (1=not at all, 5=extremely) | Importance (1=not at all, 5=extremely) |
|---|---|---|---|---|
| Stricter Gun Control | 1.26 (.44) | 2.1 (1.4) | 4.0 (1.1) | 3.8 (1.2) |
| Legal Abortion--Pro-Choice | 1.38 (.49) | 2.6 (1.6) | 4.3 (1.0) | 4.2 (1.1) |
| Universal Health Care | 1.14 (.35) | 1.7 (1.1) | 4.1 (1.1) | 4.1 (1.0) |
| Increase Minimum Wage | 1.17 (.38) | 1.8 (1.2) | 4.1 (1.0) | 4.0 (1.2) |

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Table 3

*Impacts of Selective Exposure to Messages Related to Political Attitudes on Accessibility*

*of Political Attitudes*

| | Topic | | | |
|---|---|---|---|---|
| | Abortion | Health Insurance | Minimum Wage | Gun Control |
| Selective Exposure to Attitude-Consistent Message | - | - | -.13[+] | - |
| Selective Exposure to Counter-Attitudinal Message | - | - | - | .17* |
| Base-Line Accessibility | .49*** | .34*** | - | - |
| R2 | .25 | .15 | .11 | .05 |

*Note.* Beta weights from topic-specific regression analyses. One asterisk for p < .05; two

for < .01; three for < .001; plus sign for < .10. Hyphen indicates non-significant beta.

None of the additional four control variables (not listed) showed significant impact.

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Table 4

*Impacts of Selective Exposure to Messages Related to Political Attitudes on Accessibility*

*of Political Self-Concept (beta weights)*

|  | Regression Models by Selective Exposure Measures used as Predictors | | |
|---|---|---|---|
|  | Article Choices | Exposure Times | Topics |
| Selective Exposure to Attitude-Consistent Message | .33** | - | - |
| Selective Exposure to Counter-Attitudinal Message | - | -.24** | -.24** |
| Number of Topics Accessed | - | - | .18* |
| Base-Line Accessibility | .51*** | .54*** | .51*** |
| R2 | .42 | .40 | .42 |

*Note.* One asterisk for p < .05; two for < .01; three for < .001. Hyphen indicates non-

significant beta. None of the additional seven control variables (not listed) showed

significant impact. For the model that employed 'topics' as selective exposure measure,

the number of topics for which only the attitude-consistent or only the counter-attitudinal

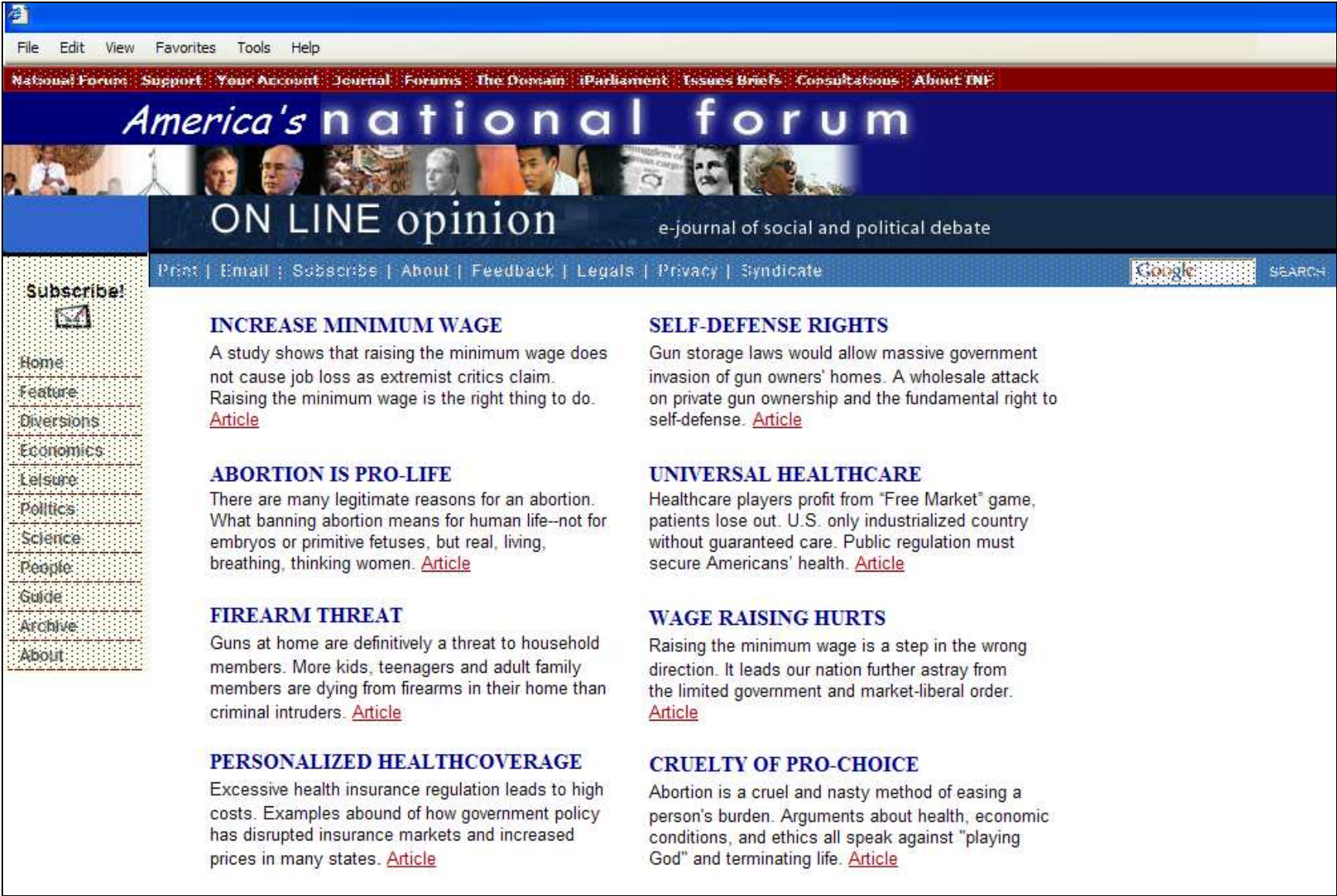message was accessed served as predictors.

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**Figure 1:**     **Screenshot of Online Magazine**

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[1] Nowadays, it usually coins observations that media users do not allocate their media choices and time equally to the available cornucopia of media messages and demonstrate preference and avoidance patterns due to situational circumstances and personality factors (Author, 2006, 2008; Zillmann & Bryant, 1985).

[2] Major political and economic events right before and during data collection (Pearson Education, n.d.; Federal Reserve Board, 2008): Presidential primaries begin with Iowa (1/3) and New Hampshire (1/8). McCain emerges as Republican front runner in primaries and caucuses held in 24 states (2/5). A week later, Democrat Obama wins three states, strengthening his lead over H. Clinton (2/12). President Bush proposes $145 billion stimulus package (1/18) and delivers last State of the Union (1/28). The Federal Reserve Bank cuts interest rates by .75% (1/22) and then .5% (1/30). Bureau of Labor Statistics reports that economy loses jobs first time in 52 Months (2/1). Senate passes stimulus package (2/7).

[3] Email correspondence, 03/24/209, with Dr. David Ewoldsen, an expert in accessibility measures and communication research methods.

[4] Recipients' attitude change, based on these measures, could range from 0 to 4, as there were four target topics. The average attitude change was 0.48 ($SD$ = .79).

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# Reinforcement of the Political Self through Selective Exposure to Political Messages

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Reinforcement of the Political Self through Selective Exposure to Political Messages

Abstract

The idea that recipients prefer messages which reinforce pre-existing attitudes and self perceptions has pervaded much communication research, but *effects* of selective exposure are rarely examined. This two session-experiment (n = 157) investigates such effects. The first session presented computerized questions on 12 political issue attitudes and political self-concept. Accessibility data were collected based on response times. In the second session, participants browsed through an online magazine including four of the 12 issues, each issue being covered by two articles featuring opposing viewpoints. Selective exposure was logged and categorized as attitude-consistent or counter-attitudinal. Finally, a questionnaire repeated measures for attitudes and self-concept. The results show that participants preferred attitude-consistent over counter-attitudinal messages, which strengthened the political self-concept through increased accessibility.

KEYWORDS: selective exposure, attitudes, self-concept, identity, media, political self, accessibility

**Reinforcement of the Political Self through Selective Exposure to Political Messages**

The idea that individuals may prefer attitude-consistent messages has long been a

concern, as this pattern would hinder an informed opinion formation according to democratic

ideals. The term *selective exposure*[1] traditionally refers to this phenomenon (e.g., Klapper, 1960;

Lazarsfeld, Berelson, & Gaudet, 1944; Sears & Freedman, 1967). More recently, the issue

attracts new attention as the Internet and ever-rising media offerings increase the available

choices and make them easily accessible. Oftentimes, selective exposure is viewed as a key

factor in protecting existing predispositions and favorable views of the self. Along these lines, it

has been argued that the media mostly have effects that reinforce the status quo, which may lead

to underestimating the total mass communication impacts (e.g., Klapper, 1960). Empirical

evidence on these self-reinforcement phenomena still defines a void (Slater, 2007). The current

investigation aims to shed more light on how exactly selective exposure bolsters media users'

preexisting views as well as their self-concept. In the following, we review research on selective

exposure to political information and its implications before we present empirical tests of

hypotheses derived from this review.

Most prior work has been concerned with *predictors* of selective exposure to political

messages. In spite of ample research on selective exposure as a preference for attitude-consistent

messages, usually embedded in the theoretical framework of cognitive dissonance (Festinger,

1957), the debate on the coherence and strength of the empirical evidence has been on-going for

decades. A recent meta-analysis by D'Alessio and Allen (2007) judged the evidence as

consistent but weak. Yet it focused on post-decisional dissonances, which are not the typical

context of media use. With regard to selective exposure in an actual media use context, existent

investigations are somewhat scarce (Knobloch-Westerwick & Meng, 2009). Recent media use

studies suggest that respondents do prefer attitude-consistent messages or channels and avoid

counter-attitudinal material (e.g., Garrett, 2006; Graf & Aday, 2008; Stroud, 2008). In our own

work, we recently found consistent and clear-cut evidence for selective exposure to attitude-

consistent messages across different indicators, different topics, and based on behavioral data.

Before we examine further consequences of such exposure in the current investigation, a

replication of these earlier findings will be pursued.

    H1:    Media users prefer attitude-consistent topic information over counter-attitudinal

           information.

      Research about the exposure bias toward attitude-consistent messages often mentions

problems for democratic ideals as a result of this bias. It may hinder an informed opinion-

formation, polarize the electorate, and reduce political tolerance (e.g., Bennett & Iyengar, 2008;

Mutz, 2002; Sunstein, 2001). However, a research focus on *outcomes* of selective exposure along

these lines is scarce and faced with some methodological issues. If selective exposure primarily

fosters the status quo, then evidence of such outcomes may be difficult to capture. After all,

changes are more easily demonstrated than stability, similar to testing H1 versus H0. Another

methodological concern is self-selection effect, which is usually considered a problem in

determining causation but is 'the nature of the beast' in this context.

      Prior research has demonstrated differences between individuals with varying levels of

attitude-consistent and counter-attitudinal exposure. Mutz (2002) found that having interpersonal

networks with greater political disagreement resulted in a lower voting intention at US

presidential elections compared to individuals with more homogeneous networks. Likewise,

research by Brynin and Newton (2003) suggests that citizens who read a newspaper in line with

political party-preference are significantly more likely to vote in general elections than those

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who read a paper that is incompatible with their party preferences. Stroud (2007) found that

those who viewed the anti-President George W. Bush documentary "Fahrenheit 9/11" had

significantly more negative attitudes toward Bush compared to those who intended to view the

film.

In other content contexts, reinforcement of the self has been suggested to be a crucial

motivation for selective exposure (Knobloch, Coy, Chen, Fritzsche, & Zillmann, 2005;

Knobloch-Westerwick, Appiah, & Alter, 2008; Knobloch-Westerwick & Meng, 2009; Slater,

2007), for example, for gender identity or ethnic identity. In the context of political messages in

which the issue of selective exposure emerged as a communication research topic, the political

self as party partisan is of key interest (e.g., Lazarsfeld et al., 1944) and highly relevant for

voting outcomes. Cognitive dissonance theory has been guiding much research in this area; yet it

has not been connected with self-concepts in the context of mass communication use.

However, within psychology, connections between cognitive dissonance theory and self-

concepts have been discussed extensively. For example, Aaronson (1968) presented a self-

consistency model that predicts that inconsistency of information or actions with the self-concept

will produce dissonance (instead of *any* inconsistent cognitions). According to this view,

individuals will prefer information that corroborates their self-concept, even if the particular

aspect is negative (e.g., someone who believes to have poor math skills should prefer a poor

math test result). Many other propositions about the self exist that have also been linked to

cognitive dissonance theory (e.g., self-verification theory by Swann, 1987; self-affirmation

theory by Steele, 1988; the New Look at dissonance theory by Cooper & Fazio, 1984), as

reviewed by Harmon-Jones and Mills (1999). It has been suggested that self-esteem is just a

special case of an attitude that happens to have the self as object of evaluation (DeMarree, Petty,

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& Brinol, 2007). This matches Festinger's (1957) proposition that the magnitude of dissonance

relates to the importance attached to the involved cognitions—if the self is the object of

inconsistent cognitions, then dissonance will be intense, as the self is naturally of crucial

importance.

In light of these considerations, it is important to examine how selective exposure to

political media messages actually affects the political self in the sense of party partisanship. Yet

it is unlikely that such exposure will have a tangible impact in terms of *change* in the sense of

conversion (Klapper, 1960). In other words, after reading some political messages even over an

extended period, a conversion from Republican to Democrat and vice versa will be quite rare.

However, reinforcement could be detected through implicit measures (Fazio & Olson, 2003)

such as accessibility of party partisanship as political self-concept (Markus, 1977). If a pre-

existing political view or view of the self becomes more accessible, this type of *change* could

actually capture a reinforcement effect. Accessibility measures are frequently used in attitude

research (e.g., Fazio, 1995), but many parallels exist between attitude strength and strength of

self-concepts, in particular with regard to accessibility (DeMarree, Petty, & Briñol, 2007).

Thus the current study draws on accessibility of attitudes and of political partisanship as

the 'political self' to examine any impacts of selective exposure. Greater accessibility of pre-

existing attitudes is considered to indicate reinforcement. In this regard, the current approach

relates to work on media priming and political priming in particular (see for an overview

Roskos-Ewoldsen, Roskos-Ewoldsen, Carpentier, 2009), even though this body of literature

utilizes forced-exposure designs only. Priming research studies short-term impact of exposure to

the media on judgments and behaviors. These impacts are said to result from increased

accessibility of constructs primed by the media message. It is also argued that priming can foster

chronic accessibility of constructs portrayed in the media and thus produce long-term shifts in

information processing. Hence, as media recipients attend selectively to messages, they can

employ them to prime themselves in line with any ideas they value and thus *reinforce* them. The

cognitive processes that then evolve, once the message selection has occurred, can be described

along the lines of network models of memory or mental models (Carpentier, Roskos-Ewoldsen,

& Roskos-Ewoldsen, 2008).

        On a cautionary note, the operationalization of reinforcement through accessibility may

not be perfect, as this implicit measure that may be subject to other influences in addition to the

targeted reinforcement effect. From an information processing perspective, it is possible that

additional information received during selective exposure, even if consistent with preexisting

attitudes or partisanship and thus reinforcing, instigates elaborations and reorganization of

political knowledge and associated viewpoints. In other words, even exposure to attitude-

consistent information could reduce accessibility, as recipients aim to incorporate the newly

received information into their mindset. Such elaboration and knowledge reorganization would

reduce accessibility of one's attitudes and political self-concept, at least in the short run. Despite

this concern, accessibility of attitudes and self-concepts appears very suitable to operationalize a

phenomenon as subtle as reinforcement.

        Thus the current study draws on accessibility of attitudes and of political partisanship as

the 'political self' to examine reinforcement impacts of selective exposure. Theoretical notions

about cognitive consistency motivations (outlined above) imply that media users will prefer

attitude-consistent messages in order to foster attitude strength. Such reinforcement, if

successful, should be reflected in increased accessibility of the related attitudes. Similarly, a

preference for political information that is consistent with one's political partisanship should

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serve the reinforcement of one's political self-concept. If successful, the reinforcement would be reflected in greater accessibility of the political self-concept. The suggested pattern should apply in particular to topics for which the political parties have clearly different stances and if individuals' topic attitudes converge with parties' stances. The current study aims to demonstrate these patterns based on the hypotheses stated below.

H2:    Selective exposure to attitude-consistent messages increases accessibility of
          corresponding attitudes.

H3:    Selective exposure to attitude-consistent political messages increases accessibility of
          the political self.

Method

*Overview*

       An experiment with two sessions, with complete data from both sessions for 157 participants, was conducted in a lab and online (n = 66/91). In the first session, participants responded to a computerized questionnaire about 12 political issue attitudes, attitude certainty, attitude importance, political self-concept, political interest, and news use habits. Accessibility data were collected based on attitude response times. In the second session, approx. four weeks later, participants were asked to browse through an online news magazine. Four policy issues (target issues) chosen from the 12 issues were covered by the eight displayed articles, with two articles featuring opposing topic perspectives. Selective exposure time to specific news reports was unobtrusively logged by software. After the browsing period, participants completed a questionnaire that repeated measures for attitudes and political self-concept.

*Respondents*

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Participants were recruited from undergraduate communication classes at a large

Midwestern university and received extra credit for participation. The sample consisted of 157

complete data sets with data from both sessions (after excluding 14 individuals that had clicked

on one or less of the available articles and thus did hardly engage in news reading). The two

methods of data collection, lab and online (n = 66/91), led to different gender proportions in the

two samples (43% males in the lab sample and 25% males in the online sample). Age did not

differ by data collection method and was 21.4 ($SD$ = 2.6) on average.

*Procedure*

The main experiment consisted of two sessions that were either conducted in a computer lab

or online. The first data collection part was performed 01/23/08-02/01/08, the second 02/20/08-

02/29/08, hence during the onset of the presidential primaries 2008.[2] In the following, we

describe the lab procedure and then point out the differences of the online procedure.

*Lab procedure.* Participants signed up for session times upon instructors' in-class invitation

to earn extra credit. The lab sessions were both run in a facility with five identical personal

computers in separate rooms. When arriving for the first lab session, the respondents received

general verbal instructions that were then reiterated via computer screen. Respondents were led

to individual research rooms and started the computerized session, which was programmed with

MediaLab and DirectRT. The questions (displayed on separate screens) pertained to attitudes,

attitude certainty, attitude importance, demographics, self-descriptions including politically

relevant adjectives, political interest, and news use habits; additional variables were derived from

these responses (see details in the sections about measures). To link the data from the two

sessions, the last four digits of participants SSNs were recorded, which ostensibly served as

backup for proper recording of extra credit.

About four weeks later, students recruited from the same classes were invited to the

computer lab again, yet without knowing the connection between the two sessions. After the

general greeting, they were instructed as follows: "In the following, you will see a test-version of

the magazine. Please browse through to gain an impression of the articles. The scheduled time

does not allow reading all articles. So please read what you find interesting, just as you normally

would. There is no assigned number of articles that you should read, and you don't have to read

the articles as a whole. After the scheduled browsing time is over, a questionnaire will upload

automatically, and you will be asked about your impressions of the articles."

Then participants were asked to start the computerized experiment (programmed with

MediaLab, DirectRT, and Authorware). The first instruction page presented the same

information as the verbal instruction; the online magazine was displayed for 5 minutes, until a

news evaluations questionnaire was uploaded to provide closure for the browsing part. These

questions asked how "credible/important/biased/ interesting/timely/well-written/relevant" the

articles were; the items were rated on 7-point scales, ranging from "not at all" to "extremely."

Finally, the parts of the first session about attitudes (dichotomous and Likert measures) and self-

descriptions were essentially repeated (see details in sections on independent and dependent

measures).

*Online procedure.* For the online procedure, potential participants received an email

invitation from their instructors with the same information as featured in the in-class

announcement for the lab procedure. They were informed of some technical requirements, as the

online procedure was set up so that a Windows PC with an Internet browser (typically Internet

Explorer) had to be used and a web-player had to be downloaded to execute the application

programmed in Authorware7. The first screen page instructed the participants that the session

required full attention and allowed them to quit if they wanted to take the session at a later point.

The specific instructions were as follows.

> "Thank you for accessing this research application. Before you start, please be
> informed that it is absolutely crucial that you are not distracted while taking the
> session. Distraction will be reflected in the data and will result in unusable scores.
> The session will take about 10 minutes. If this is not a good time for you to take the
> session, please return later. *<Press "X" to exit and return later>* If you'd like to
> proceed now, please ensure that you won't be distracted (e.g, turn off your cell phone/
> TV, shut the door). *<Press SPACEBAR to continue>"*

The rest of the procedure was equivalent to the lab procedure. The Authorware application

mimicked all the details of the look from the MediaLab and DirectRT application used in the lab

procedure and also recorded response times (regarding reliability of such measures recorded in

Authorware, see Tew and McGraw, 2002). For the second session, participants received another

email invitation and completed the same procedure as in the lab online, set up in Authorware.

The only difference was that they were again informed that the session required full attention,

similar to the instruction quoted above, yet with an announced time span of 15 min.

*Measures pertaining to Attitudes, Self Concept, and other Recipient Characteristics*

   *Attitude (dichotomous).* Before providing attitude data in both sessions, participants

completed a practice trial to become familiar with the task and were instructed as follows:

> The first task serves to show you how things work and to familiarize you with the
> procedure. In this task words will be presented for you to classify into groups—
> positive and negative adjectives. This task requires that you classify items as
> quickly as you can while making as few mistakes as possible. Going too slow or
> making too many mistakes will result in an uninterpretable score.
> Press one of two keys to categorize the displayed word.
> The key with the symbol "Z" indicates NEGATIVE adjective.
> The key with the symbol "/" indicates POSITIVE adjective.
> It works best to keep one index finger above both these keys for quick responses.

   Six adjectives (marvelous, superb, pleasure, painful, terrible, awful) showed up on each

new screen in a random sequence. On each screen, the adjective appeared in the center with

"Negative" and "Positive" at the left and right bottom respectively. Once a participant pressed

"Z" or "/", the procedure continued to the next screen. A parallel practice trial was used in the

second session, with insects and flowers to be categorized (tulip, bee, ant, orchid, beetle, daisy,

with "Insect" and "Flower" shown at the left and right bottom of the screen respectively.)

For the actual dichotomous measurement of attitudes, eight political filler issues were

presented first in randomized sequence and then the four target issues relevant for the later

exposure measurement were displayed (see Table 1 for the target issues) in randomized

sequence, with three words for each topic. Respondents were asked to choose either "oppose" or

"support" by pressing corresponding keys. The specific instruction over several screen pages was

as follows.

> In the following, you will be asked about topics where people can have very
> different opinions. Please keep in mind that there are no 'right' or 'wrong' answers
> for these questions and that we are only interested in your personal views and
> various aspects of your opinion.
> All collected information is anonymous. Only information that cannot be
> linked to you as a person will be collected.
> We are interested in your spontaneous reactions. Thus please answer each
> question as quickly as possible, but not so quickly that you might make errors.
> Press one of two keys to indicate whether you support or oppose a policy. The key
> with the symbol "Z" indicates that you oppose a policy. The key with the symbol
> "/" indicates that you support a policy. Please keep your index finger above these
> two number keys to increase response speed. Again, please answer each question as
> quickly as possible, but not so quickly that you might make errors.

*Attitude accessibility.* The attitude measures in dichotomous format also served to gather

accessibility data through response times for indicated support regarding each political issue. The

computerized procedure recorded the response latency as a measure of attitude accessibility

(Fazio, 1995).

*Attitude (Likert scale).* In the first session, respondents were asked to rate how strongly they

oppose or support the policies on a 5-point Likert scale, with "strongly support/somewhat

support/neither support nor oppose/somewhat oppose/strongly oppose" as response options. In

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the second session, respondents were asked to rate how strongly they oppose or support the

policies on a 6-point Likert scale, with *strongly support/overall support/rather support/rather*

*oppose/overall oppose/strongly oppose* as response options.

*Attitude extremity.* An attitude extremity measure was derived from the attitude Likert scale

from the first session, with "strongly support" and "strongly oppose" being coded as 3,

"somewhat support" and "somewhat oppose" coded as 2, and "neither support nor oppose"

coded as 1.

*Attitude certainty.* Participants indicated in the first session how certain they were about

their opinions towards the policies on a 5-point Likert scale, with "not at all certain/somewhat

certain/fairly certain/very certain/extremely certain" as response options.

*Attitude importance.* Participants were asked in the first session how important the issues

were to them personally on a 5-point Likert scale, "not at all important/somewhat

important/fairly important/very important/extremely important."

*Political self.* In both sessions, self-descriptions were collected. The approach was in line

with procedures by Markus (1977) and more recently, in communication research, Comello &

Slater (2009). The instructions were displayed over several screens as follows:

> In the following, you will be asked about yourself based on characteristics that
> may or may not apply to you. We'd like to get your spontaneous responses, so
> please press the response key quickly to indicate whether a characteristic applies to
> you or not.
> The key with the symbol "/" indicates that the characteristic applies to you; it
> equals "ME". The key with the symbol "Z" indicates that the characteristic does not
> apply to you; it equals "NOT ME".
> It works best to keep one index finger above both these keys for quick responses.

Then 24 adjectives concerning personal characteristics were displayed on separate screens,

with the adjective displayed in the center, and "Me" and "Not me" shown at the right and left

bottom of the screen respectively. Once a participant pressed "/" or "Z", a new screen was

automatically uploaded. First, 16 filler items such as "moody", "sympathetic," and "imaginative"

were presented in a randomized sequence. Then the four target adjectives "conservative,"

"liberal," "Republican", and "Democrat", embedded in four other politically relevant

descriptions (e.g., "patriotic"), were shown in randomized order. The response times in this task

were recorded in milliseconds.

*Political self accessibility.* Political self accessibility was derived from averaged response

times for the four target adjectives.

*Political interest*. Two questions in the first session were concerned with political interest

and asked how closely respondents followed news about government and public affairs and news

about a recent election on a 4-point scale, "very closely/not too closely/somewhat closely/not at

all closely."

*News use habits*. Participants rated their news use frequency in the first session for online

news, daily newspaper, TV news, political websites, and talk/comedy shows about news and

politics on a 6-point scale, "every day/several times a week/once a week/several times a

month/once a month/less often."

*Experimental Internet Magazine*

*Display of available articles.* The experimental Web magazine was programmed with

Authorware specifically for this study. This online news magazine had a similar look and feel to

popular news magazines currently on the Internet (a screenshot of the same platform was

included by Knobloch-Westerwick & Meng, 2009). A masthead of the name and logo of the

experimental platform—"American's national forum—online opinion"—was displayed across

the top of the Web site. In addition, a navigation bar was placed on the left-hand side of the page.

Although it was deactivated, the displayed navigation bar contained newspaper section headings

such as Economics, Science, and so forth, which would be commonly found on a news site. The

main frame initially contained an overview, which listed news leads for all available articles in

two columns.

The overview page showed eight news leads that each contained a headline, a news lead,

and a hyperlink to access the actual article. The news leads were about the same length with 24

to 28 words. The positions of news leads on the overview page were randomized for each

participant to prevent position effects. However, the two articles about the same issue were never

displayed next or above each other. The respondents made their reading selections by clicking on

the hyperlinks to articles, scrolling through the selected articles and reading as much of them as

they cared to, clicking to return to the overview, selecting other articles (or returning to the

abandoned ones), and so forth, until the end of the reading period. Whenever a participant

accessed or exited an article page via hyperlinks, Authorware logged the activity to accumulate

selective exposure times.

*News leads and article texts.* The news leads and articles were adopted from an earlier study

(Knobloch-Westerwick & Meng, 2009). For this prior study, a pretest of news leads had been

conducted (with participants from the same population as used for the current study) to select

two opposing leads that were perceived as different in political stance while being equally

interesting. These criteria led to the selection of the four target issues. A separate stimuli test

with participants from the same population had established that (when controlling for readers'

attitudes), text pairs for all topics did not differ significantly for level of interest.

The four policy issues and the eight headlines of the displayed articles were (a)"Universal

health care", "Personalized health coverage"; (b)"Firearm threat", "Self-defense rights";

(c)"Cruelty of pro-choice", "Abortion is pro-life"; (d)"Increase minimum wage", "Wage raising

hurts." The eight employed articles were pulled from partisan and lobbying Web sites of

heritage.org, nraila.org, and others. All articles were minimally edited, essentially shortened, to

equalize their length to about 705—719 words ($M = 716$, $SD = 5.2$). Readability scores within

each pair of articles were comparable, based on Flesch reading ease scores (which can range

between 0 and 100): 36 and 36 for minimum wage; 33 and 37 for health care; 53 and 47 for gun

control; 56 and 51 for abortion. Sans-serif typeface Verdana was used for all articles. Regular

scrolling allowed access to the full text of the articles.

The articles not only used rhetoric but featured ample topic-related details to make a case

regarding the issue in question, such as statistics, dates, budgets, descriptions of policies in

specific US states or abroad; none of the articles employed exemplars. Sources mentioned in the

articles often came for research circles (researchers, institutions, journals) or represented other

fairly neutral institutions such as the Census Bureau, the World Health Organization, or FBI

crime reports. However, lobbying sources such as the *Center to Prevent Handgun Violence* or a

union movement *America Needs a Raise* were also referred to. In the context of minimum wage,

one article mentioned both Democrats and Republicans in the first article paragraph, whereas the

other article talked about a Congress bill in the middle of the text (after 316 body text words) and

used the word "Democrats" three times in this paragraph. It is worthwhile to note these details in

order to highlight that the references to the Republican and the Democrat party carried negligible

weight in the presented text material. Hence, it is very unlikely that any increased accessibility of

political partisanship could result from simple priming instead of the suggested attitude-related

reinforcement and the resulting political self-concept reinforcement.

*Selective Exposure Measures*

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The software application tracked participants' exposure in seconds by logging every

hyperlink use. Exposure was operationalized as article choice (clicked on hyperlink leading to

article or not) and reading time in seconds. More specifically, the key dependent measure was

exposure to news articles with either attitude-consistent or counter-attitudinal perspective. For

each political issue, the dichotomous measurement of attitudes from the first data-collection

session was employed to code articles and exposure to them as attitude-consistent or counter-

attitudinal on an individual basis. The following measures were generated from hyperlink clicks

for individual articles to test the hypotheses: selection of (a) attitude-consistent articles and (b)

counterattitudinal articles, exposure time in seconds dedicated to (c) attitude-consistent articles

and (d) counter-attitudinal articles. For a-d, measures were generated for each specific article but

also accumulated selections and exposure times.

<div align="center">Results</div>

*Preliminary Analyses*

  *Respondent characteristics.* A condensed measure was created for political self-concept.

After reversing two of the four target self-descriptions, the reliability of the responses for these

yielded a Cronbach's alpha of .86. Hence, the scores could be condensed as a mean index (higher

scores represented a more liberal orientation). Based on this measure 46 individuals identified

themselves consistently as Republican/conservative, and 17 leaned toward this category but gave

one inconsistent response. Fifty individuals identified themselves consistently as

Democrat/liberal, and 20 leaned toward this category with one inconsistent response out of four.

Twenty-one individuals' responses were inconsistent to the effect that they could not be

classified.

An index for political self accessibility was derived from averaged response times for the

four target self-descriptions. The average response time was 1326 ms (*SD* = 485). Due to the

nature of the index (in contrast to a scale), a reliability score was not computed; accessibility is

commonly measured with response time for  just one item, which does not allow computing

reliability scores in the first place[3]. However, greater accessibility was associated with greater

consistency in the responses as explained in the prior paragraph (*r* = .27, *p* = .002) and lower

within-subject standard deviation (*r* = .22, *p* = .012), which speaks to concurrent validity of the

measure.

The reliability for the news use habits items was .67 and thus sufficient to create a news

use frequency index. The political interest index consisted of the mean of two items that were

correlated at *r* = .66 (*p* < .001). News use and political interest were correlated at *r* = .55 (*p* <

.001).

*Descriptive statistics for attitudes*. On average, participants indicated that they supported

an increase of the minimum wage and favored universal health care as well as stricter gun

control; opinions on abortion were somewhat more diverse (see Table 1). Participants' certainty

of their abortion attitude was significantly higher than for minimum wage (*t*(151) = 2.0, *p* = .050)

and gun control (*t*(151) = 3.8, *p* < .001). Gun control was significantly less important to

participants than universal healthcare (*t*(151) = 2.8, *p* = .006) and abortion (*t*(151) = 3.4, *p* =

.001); the minimum wage issue was less important than abortion (*t*(151) = 2.1, *p* = .038).

*Convergence of attitudes with political party stances.* For the examination of H3, the

assumption that individuals' topic attitudes converge with parties' stances regarding these topics

is of crucial importance. After all, it is possible that someone who thinks of himself/herself as a

Republican favors pro-choice abortion policies nonetheless. In that case, attitude-consistent

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exposure for this particular topic could actually undermine partisanship as political self-concept.

However, individuals' attitudes for the four target topics were generally highly consistent with

the viewpoints supported by the favored party. This was demonstrated by an inter-item reliability

analysis that employed the dichotomous attitude responses for the four issues (which were all

worded in pro-liberal terms) and the four target adjectives for political self (two of them

recoded). Cronbach's alpha was .79 for this analysis.

　　　*Selective exposure*. As mentioned above, 14 individuals had been excluded from the

sample as they had clicked on one or less of the available articles and thus did not appear to have

engaged in news reading. For the remaining sample, participants spent 61 seconds ($SD = 55$) on

the overview page that displayed the news leads. The minimum time for the overview page was

7 seconds, the maximum 232 seconds. On average, participants clicked on 3.5 articles ($SD =

1.9$), with a range from zero to eight. On average, participants spent 98 s ($SD = 82$) on the topic

of abortion, 54 s ($SD = 64$) on gun-related articles, 47 s ($SD =52$) on texts pertaining to the

minimum wage, and 40 s ($SD = 60$) on articles about health insurance. With regard to potential

multicollinearity issues in later regression analyses, it is relevant to note that the selective

exposure indicators (as described per a-d under "Dependent Measures") were only moderately

correlated, with significant correlations ranging from |.19| to |.59|.

　　　*Comparison of lab and online sample*. Extensive tests were run to detect if the two data

collection approaches yielded differences in the variables of interest. No differences were found

for news use habits, political interest, attitudes (baseline), attitude accessibility (baseline),

attitude importance, attitude extremity, political self (baseline), and political self accessibility

(baseline) ($p = .20$ for one variable, $p > .43$ for the other characteristics). The only difference

worth mentioning was a generally higher attitude certainty reported in a lab setting ($M$ = 4.25

versus 4.02, $SD$ = .6 versus .8), $t(169)$ = 2.3, $p$ = .026.

*Impact of Attitudes on Selective Exposure*

Participants clicked on 2.0 ($SD$ = 1.0) articles that featured attitude-consistent views and

on 1.7 articles ($SD$ = 1.1) with a counter-attitudinal stance. This difference was significant in an

ANOVA with the article choices as repeated measures ($F(1, 157)$ = 10.6, $p$ < .001, $\eta^2$ = .063) and

data collection method as between-factor (*n.s.*). For exposure times, participants spent 139

seconds on average ($SD$ = 74) on attitude-consistent information and 95 seconds ($SD$ = 70) on

counter-attitudinal messages. The difference was again significant ($F(1, 157)$ = 14.6, $p$ < .001, $\eta^2$

= .085), while the data collection method was irrelevant (*n.s.*) when applying the same ANOVA

model to exposure times. The ANOVA model was extended by using the four topics as

another within-factor. Both the topic dimension ($F(3, 471)$ = 15.5, $p$ < .001, $\eta^2$ = .090) and the

dimension of the attitude-consistent versus counter-attitudinal choices ($F(1, 157)$ = 10.6, $p$ =

.001, $\eta^2$ = .063) had significant impact on selections. The same ANOVA design with the same

within-factors but exposure time as repeated measures yielded that, for amount of exposure, both

topic ($F(3, 471)$ = 17.9, $p$ < .001, $\eta^2$ = .102) and the contrast of attitude-consistent and counter-

attitudinal ($F(1, 157)$ = 14.6, $p$ < .001, $\eta^2$ = .085) mattered. More importantly, both ANOVAs did

not yield an interaction ($p$ > .76) between the two within-factors, which shows that the

preference for attitude-consistent information was uniform and applied regardless of topic. These

findings support H1. Method of data collection had been included as between-group factor but

did not show an impact (*n.s.*).

Finally, we compared for how many topics participants accessed through (a) only

attitude-consistent messages, or (b) only counter-attitudinal messages, or (c) both types of

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messages. On average, participants looked at .98 topics (SD = .92) only based on attitude-

consistent information. Both sides were viewed for 1.06 (SD = 1.05) topics. Only counter-

attitudinal exposure for a topic was less common, with .67 topics on average (SD = .72); the

difference was significant compared to (a) and (b) in paired *t* tests (*t*(158) = 3.1/3.5, p < .002).

*Implications of Selective Exposure on Attitude Accessibility*

Examinations of selective exposure effects on attitude accessibilities were conducted for

issue-specific accessibility and across the four issues (condensed by averaging response times).

The regression analyses employed exposure times for attitude-consistent and counter-attitudinal

messages, attitude importance and certainty, as well as a variable that indicated if an attitude

change had occurred when considering the dichotomous attitude measures from the first and the

second research session[4], finally the base-line response time and mode of data collection as

controls.

These analyses did not yield consistent effect patterns. No selective exposure effects were

found for attitude accessibilities regarding healthcare and abortion. For gun control, longer

exposure to counter-attitudinal content increased the response time for the corresponding attitude

(beta = .17, *p* = .040). For minimum wage, attitude-consistent exposure tended to reduce the

response time (beta = -.13, *p* =.095). Details are reported in Table 2. No exposure effects on

accessibility were found for the condensed variables across issues.

*Implications of Selective Exposure on Political Self Accessibility*

Effects of selective exposure on the accessibility of political self-concept were examined

through three regression analyses, using (1) article choices for attitude-consistent or counter-

attitudinal messages, (2) exposure times for attitude-consistent or counter-attitudinal messages,

and (3) number of topics accessed for attitude-consistent or counter-attitudinal message *only*.

Results of these three analyses are summarized in Table 3. The 21 participants who did not

clearly identify themselves as partisan of a political party were excluded from this analysis. The

following variables served as controls: data collection mode, base line accessibility of the

political self, average attitude importance, average attitude certainty, average attitude extremity,

news use habits, political interest, political self as political partisanship, and how many of the

four topics were accessed.

The regression model with choices of counter-attitudinal and attitude-consistent messages

as predictors yielded a significant impact of frequency of attitude-consistent message choices on

the response times for political self descriptors in the second session (*beta* = .33, *p* = .003).

Hence, the more often attitude-consistent content was clicked on, the faster participants

responded to politically relevant self-descriptions. The only control variable that had significant

impact was the baseline accessibility of the political self (see Table 3).

A parallel analysis was run using exposure *times* for counter-attitudinal and attitude-

consistent messages as predictors. The more time participants spent on counter-attitudinal

content, the slower they were when responding to politically relevant self-descriptions (*beta* = -

.24, *p* = .027). For the control variables, data collection mode was again irrelevant (*n.s.*) but

response times for political self descriptors from the first session had, of course, a significant

impact (see Table 3).

To look into effects of different exposure constellations, such as reading only the attitude-

consistent message on a topic or only the counter-attitudinal text on an issue, an additional

analysis was performed. It utilized the number of topics for which participants had accessed only

attitude-consistent or only counter-attitudinal messages. These indicators could vary between

zero and four. It revealed that reading about more topics—and maybe none in depth—led to

greater accessibility of the political self concept (beta = .18, *p* = .034). It also demonstrated that

more reading topics with counter-attitudinal exposure only, the lower the accessibility of the

political self (beta = -.24, *p* = .003). As in the prior analyses, the baseline accessibility had a

significant impact, whereas data collection mode did not (see Table 3).

Discussion

It has long been argued that much of media use is motivated by an interest to bolster

existing attitudes, including attitudes regarding the self. The present findings replicate evidence

(Knobloch-Westerwick & Meng, 2009) that media recipients prefer messages in line with pre-

existing political attitudes over counter-attitudinal content. This impact was again found to apply

regardless of political issue and media use context (lab situation versus individual online use

context).

More importantly, selective exposure to attitude-consistent messages in general increased

accessibility of the political self-concept, whereas exposure to counter-attitudinal messages

decreased it. This is an impressive corroboration that selective media exposure allows bolstering

the self-concept. This phenomenon is generally difficult to capture, as it represents stability and

reinforcement but not change in the sense of conversion. However, by looking at reinforcement

as a change and increase of accessibility, empirical demonstration was successful.

Yet, evidence for reinforcement of specific preexisting attitudes through selective

exposure was inconsistent. We believe that the information related to specific topics may

occasionally have produced longer response times and thus lower accessibility as participants

were trying to integrate the information received during exposure into their views. The positive

impact of number of accessed topics, with more topics signaling more superficial reading, on

accessibility of the political self concept speaks for that notion. Or participants may have

encountered additional issue information in the media between the first and the second session

(during the onset of the presidential primaries in early 2008). As a result, even if a preference for

attitude-consistent messages is exhibited, this may encourage recipients to reconsider an issue

when asked about their views right after exposure. Hence, attitudes could be reinforced in the

long run, but the measures collected right after exposure were not suited to show that. Yet the

political self-concept, which can be seen as a much broader attitude regarding the self, was

strengthened by attitude-consistent selective exposure for particular issues related to this self-

concept domain; it was thus apparently not affected by processing of specifics.

We have focused on one particular domain of the self-concept—the political self. It is

interesting that the self-bolstering pattern could be observed for an identity facet that appears to

have comparatively low importance for self descriptions. Smith (2007) reports that political party

preference ranked lowest by far (4%) when people were asked to select the three most important

out of ten categories to describe who they are. Obviously, facets of the self can be rendered

salient by the given context (e.g., Markus & Wurf, 1987), which was a political messages web

site in the current study. Yet it is likely that greater impacts on media use will occur for aspects

of the self that are generally more accessible.

Gender, for instance, is generally considered to be crucial for self-perceptions and even

general psychological adjustment (e.g., O'Heron & Orlofsky, 1990). In line with the idea of self-

bolstering media use, children have long been said to prefer same-sex media characters (e.g.,

Hoffner, 1996; Knobloch et al., 2005), which most likely serves a motivation to develop a

gender-based identity in the first place. Further examples include women's preference for

relationship issues and melodramatic fiction on the one hand and men's preference for sports and

other competition-related content and violent entertainment on the other hand (e.g., Knobloch-

Westerwick & Alter, 2007; Oliver, Weaver, & Sargent, 1998). Most likely without any

awareness, media users may strive to sustain internalization of gender-typed norms to match

those expectations. Experimental evidence for these selection patterns and subsequent impacts on

behavior has been provided by Knobloch-Westerwick and Alter (2006). But clear indications of

selective exposure effects on gendered self-perceptions define a void in existing research.

Obviously, the current analysis leaves many questions unanswered regarding selective

media exposure in the interest of reinforcement of the self. As the current study employed a

student sample, which presents problems to the generalizability, additional research with a more

diverse sample is in the making. This follow-up work might also reveal to what extent the

political climate and context of the data collection time period affects selective exposure and its

consequences in any way. Furthermore, how long do these self-reinforcement effects last? What

ceiling and floor effects exist? In other words, can self-concepts be too strong or too weak to

evoke reinforcing selective exposure? Do the patterns demonstrated for the political self also

affect categories that relate to ethnicity, family status, occupation, age, etc. that have been found

to be more salient than political categories (Smith, 2007)?

Reinforcement of the self may well be the type of effect that media users seek most

frequently and habitually. If individuals strive for self-consistency and stability, even though

their selves are dynamic and subject to continuous fluctuation and adaptation (e.g., Markus &

Wurf, 1987), media use may offer great tools for 'consistency maintenance' (Ibid., p. 300). This

motivation might be the origin of those overwhelmingly strong media use patterns that have

become 'common sense' knowledge about media preferences. On the other hand, media use may

not only serve 'self maintenance' but also render self facets salient as deemed useful per

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situational circumstances. The complexity and dynamics of the self may be crucial for many

media use situations, though difficult to tackle as a psychological process.

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References

Aronson, E. (1968). Dissonance theory: Progress and problems. In R. P. Abelson, E. Aronson,

W. J. McGuire, T. M. Newcomb, M. J. Rosenberg, & P. H. Tannenbaum (Eds.),

*Cognitive consistency theories: A source book* (pp. 5-27). Skokie, IL: Rand McNally.

Aronson, E. (1969). The theory of cognitive dissonance: A current perspective. In L. Berkowitz

(Ed.), *Advances in experimental social psychology* (Vol. 4, pp. 1-34). Orlando, FIL

Academic Press.

Bennett, W. L., & Iyengar, S. (2008). A new era of minimal effects? The changing foundations

of political communication. *Journal of Communication, 58*, 707–731.

Brynin, M., & Newton, K. (2003). The national press and voting turnout: British general

elections of 1992 and 1997. *Political Communication, 20 (1),* 59—77.

Carpentier, F. D., D. R. Roskos-Ewoldsen, B. B, Roskos-Ewoldsen (2008). A test of the

networks models of political priming. *Media Psychology, 11*, 186-206.

Comello, M. L. G., & Slater, M. D. (2009). *The effects of drug-prevention messages on the*

*accessibility of identity-related constructs.* Health Communication Division, 59th Annual

International Communication Association Conference, May 21-25, 2009, Chicago, IL.

Cooper, J., & Fazio, R. H. (1984). A new look at dissonance theory. In L. Berkowitz (Ed.),

*Advances in experimental social psychology 17: Social psychological studies of the self*

(pp. 229-262). San Diego, CA: Academic Press.

D'Alessio, D., & Allen, M. (2007). The selective exposure hypothesis and media choice

processes. In R. W. Preiss, B. M. Gayle, N. Burrell, M. Allen, & J. Bryant (Ed.), Mass

media effects research: Advances through meta-analysis (pp. 103-118). Hillsdale, NJ:

Lawrence Erlbaum Associates.

DeMarree, K. G., Petty, R. E., & Briñol, P. (2007). Self and attitude strength parallels: Focus on

accessibility. *Social and Personality Psychology Compass*, *1(1),* 441-468.

Fazio, R.H., & Olson, M. A. (2003). Implicit measures in social cognition research: Their

meaning and use. *Annual Review of Psychology, 54*, 297-327.

Fazio, R. H. (1995). Attitudes as object-evaluation associations: Determinants, consequences,

and correlates of attitude accessibility. In R. Petty & J. A. Krosnick (Eds.), *Attitude*

*strength: Antecedents and consequences* (*p*p. 247-282). Hillsdale, NJ :NJ: Lawrence

Erlbaum Associates.

Federal Reserve Board (2008, Dec 16). Open market operations [WWW document]. Retrieved

February 28, 2009, from *http://www.federalreserve.gov/fomc/fundsrate.htm*

Festinger, Leon (1957). *A theory of cognitive dissonance*. Stanford/CA: Stanford University

Press.

Garrett, R. K. (2006). Avoiding political difference: characteristics associated with reduced

exposure to opinion-contrary information," paper presented at the National

Communication Association meeting, San Antonio, Texas, November 16–19.

Graf, J., & Aday, S. (2008). Selective attention to online political information. *Journal of*

*Broadcasting & Electronic Media*, *52*(1), 86-100.

Harmon-Jones, E., & Mills, J. (1999). *Cognitive dissonance: Perspectives on a pivotal theory in*

*social psychology*. Washington, DC: American Psychological Association.

Hoffner, C. (1996). Children's wishful identification and parasocial interaction with favorite

television characters. *Journal of Broadcasting & Electronic Media, 40*(3), 389-403.

Klapper, J. T. (1960). *The effects of mass communication*. New York, NY: Free Press.

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Knobloch, S., Callison, C., Chen, L., Fritzsche, A., & Zillmann, D. (2005). Children's sex-

  stereotyped self-socialization through selective exposure to entertainment fare: Cross-

  cultural experiments in Germany, China, and the United States. *Journal of*

  *Communication*, *55*, 122-138.

Knobloch-Westerwick, S., & Alter, S. (2006). Mood adjustment to social situations through mass

  media use: How men ruminate and women dissipate angry moods. *Human*

  *Communication Research, 32*, 58-73.

Knobloch-Westerwick, S., & Alter, S. (2007). The gender news use divide: Americans' sex-

  typed selective exposure to online news topics. *Journal of Communication*, *57*(4), 739-

  758.

Knobloch-Westerwick, S., Appiah, O., & Alter, S. (2008). News selection patterns as a function

  of race: The discerning minority and the indiscriminating majority. *Media Psychology,*

  *11*(3), 400-417.

Knobloch-Westerwick, S. & Meng, J. (2009). Looking the other way: Selective exposure to

  attitude-consistent and counter-attitudinal political information. *Communication*

  *Research, 36*(3), 426-448.

Lazarsfeld, P. F., Berelson, B., & Gaudet, H. (1944). *The people's choice. How the voter makes*

  *up his mind in a presidential campaign*. New York: W. Morrow and Co.

Markus, H. (1977). Self-schemata and processing information about the self. *Journal of*

  *Personality and Social Psychology, 35*, 63-78.

Markus, H., & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective.

  *Annual Review of Psychology, 38*, 299-337.

Mutz, D. C. (2002). The consequences of cross-cutting networks for political participation.

    *American Journal of Political Science, 46 (4),* 838-855.

O'Heron, C. A., & Orlofsky, J. L. (1987). Stereotypic and nonstereotypic sex role trait and

    behavior orientations: Implications for personal adjustment. *Journal of Personality and*

    *Social Psychology, 52*(5), 1034-1042.

Oliver, M. B., Sargent, S. L., & Weaver, J. B., III (1998). The impact of sex and gender-role self

    perception on affective reactions to different types of film. *Sex Roles*, *38*, 45-62.

Pearson Education, publishing as Infoplease (n.d.). 2008 current events [WWW document].

    Retrieved February 28, 2009, from *http://www.infoplease.com/world/events/2008/*

Roskos-Ewoldsen, D. R., Roskos-Ewoldsen, B. B., Carpentier, F. D. (2009). Media priming: An

    updated synthesis. In J. Bryant & M. B. Oliver (Eds.), *Media effects: Advances in theory*

    *and research* (pp. 74-93). New York, NY: Routledge.

Sears, D. O., & Freedman, J. L. (1967). Selective exposure to information: A critical review.

    *Public Opinion Quarterly*, *31,* 194-213.

Slater, M. D. (2007). Reinforcing spirals: The mutual influence of media selectivity and media

    effects and their impact on individual behavior and social identity. *Communication*

    *Theory, 17*(3), 281-303.

Smith, T. W. (2007). Social identity and socio-demographic structure. *International Journal of*

    *Public Opinion Research, 19*(3), 380-390.

Steele, C., M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In

    L. Berkowitz (Ed.), Advances in experimental social psychology 21: Social

    psychological studies of the self (pp. 261-302). Academic Press, San Diego, CA.

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Stroud, N. J. (2007). Media effects, selective exposure, & *Fahrenheit 9/11*. *Political Communication, 24*(4), 415–432.

Stroud, N. J. (2008). Media use and political predispositions: Revisiting the concept of selective exposure. *Political Behavior, 30*(3), 341-366.

Sunstein, C. R. (2001). *Republic.com.* Princeton: Princeton University Press.

Swann, W. B. (1987). Identity negotiation: Where two roads meet. *Journal of Personality and Social Psychology, 53*(6), 1038–1051.

Tew, M. D., & McGraw, K. O. (2002). The accuracy of response timing by Authorware programs. Retrieved October 24, 2008, from *http://psychexps.olemiss.edu/Scrapbook/Timing_2002.pdf*

Zillmann, D., & Bryant, J. (1985). *Selective exposure to communication*. Hillsdale, NJ: Lawrence Erlbaum Associates.

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Table 1

*Descriptive Statistics of Attitude Measures*

| | Attitude (1=support or 2=oppose) | Attitude (1=support, 5=oppose) | Certainty (1=not at all, 5=extremely) | Importance (1=not at all, 5=extremely) |
|---|---|---|---|---|
| Stricter Gun Control | 1.26 (.44) | 2.1 (1.4) | 4.0 (1.1) | 3.8 (1.2) |
| Legal Abortion--Pro-Choice | 1.38 (.49) | 2.6 (1.6) | 4.3 (1.0) | 4.2 (1.1) |
| Universal Health Care | 1.14 (.35) | 1.7 (1.1) | 4.1 (1.1) | 4.1 (1.0) |
| Increase Minimum Wage | 1.17 (.38) | 1.8 (1.2) | 4.1 (1.0) | 4.0 (1.2) |

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Table 2

*Impacts of Selective Exposure to Messages Related to Political Attitudes on Accessibility of*

*Political Attitudes*

| | Topic | | | |
|---|---|---|---|---|
| | Abortion | Health Insurance | Minimum Wage | Gun Control |
| Selective Exposure to Attitude-Consistent Message | - | - | $-.13^+$ | - |
| Selective Exposure to Counter-Attitudinal Message | - | - | - | .17* |
| Base-Line Accessibility | .49*** | .34*** | - | - |
| $R^2$ | .25 | .15 | .11 | .05 |

*Note.* Beta weights from topic-specific regression analyses. One asterisk for $p < .05$; two for $<$

.01; three for $< .001$; plus sign for $< .10$. Hyphen indicates non-significant beta. None of the

additional four control variables (not listed) showed significant impact.

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Table 3

*Impacts of Selective Exposure to Messages Related to Political Attitudes on Accessibility of*

*Political Self-Concept (beta weights)*

| | Regression Models by Selective Exposure Measures used as Predictors | | |
|---|---|---|---|
| | Article Choices | Exposure Times | Topics |
| Selective Exposure to Attitude-Consistent Message | .33** | - | - |
| Selective Exposure to Counter-Attitudinal Message | - | -.24** | -.24** |
| Number of Topics Accessed | - | - | .18* |
| Base-Line Accessibility | .51*** | .54*** | .51*** |
| $R^2$ | .42 | .40 | .42 |

*Note.* One asterisk for $p < .05$; two for $< .01$; three for $< .001$. Hyphen indicates non-significant

beta. None of the additional seven control variables (not listed) showed significant impact. For

the model that employed 'topics' as selective exposure measure, the number of topics for which

only the attitude-consistent or only the counter-attitudinal message was accessed served as

predictors.

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[1] Nowadays, it usually coins observations that media users do not allocate their media choices and time equally to the available cornucopia of media messages and demonstrate preference and avoidance patterns due to situational circumstances and personality factors (Author, 2006, 2008; Zillmann & Bryant, 1985).

[2] Major political and economic events right before and during data collection (Pearson Education, n.d.; Federal Reserve Board, 2008): Presidential primaries begin with Iowa (1/3) and New Hampshire (1/8). McCain emerges as Republican front runner in primaries and caucuses held in 24 states (2/5). A week later, Democrat Obama wins three states, strengthening his lead over H. Clinton (2/12). President Bush proposes $145 billion stimulus package (1/18) and delivers last State of the Union (1/28). The Federal Reserve Bank cuts interest rates by .75% (1/22) and then .5% (1/30). Bureau of Labor Statistics reports that economy loses jobs first time in 52 Months (2/1). Senate passes stimulus package (2/7).

[3] Email correspondence, 03/24/209, with Dr. David Ewoldsen, an expert in accessibility measures and communication research methods.

[4] Recipients' attitude change, based on these measures, could range from 0 to 4, as there were four target topics. The average attitude change was 0.48 ($SD = .79$).