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The Influence of Mood Versus Relevant Self-Perceptions in Older Adults’ Interest in Negative Health-Related Information

Claire M. Growney and Thomas M. Hess


CITATION
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North Carolina State University

Past research suggests that, although older adults may tend to prefer positive over negative information, they may be more willing to consider relevant negative information when in a positive affective state (Growney & Hess, 2017). However, the underlying mechanism involved in this phenomenon is unclear. In the present study, we aimed to identify this mechanism and disentangle mood and self-perceptions as potential personal resources. In Study 1, young and older adults completed either a positive or negative mood manipulation task, or a health manipulation task designed to accentuate positive or negative perceptions of one’s health-related behaviors. Participants then selected three of six health-related articles to read based on their headlines, half of which were positively worded and half of which were negative, but offered self-corrective information. Participants in the positive health condition selected more negative health-related articles to read than those in the negative health condition, with the effect being specific to older adults. Simple manipulations of mood had no effect on article selection, suggesting that older adults used their positive self-perceptions as a resource for considering negative information. In addition, endorsement of information goals mediated the relationship between manipulated health behavior perceptions and article selections for both young and older adults. Results from Study 2 demonstrate that effects are specific to situations with high-informative versus low-informative content. Our findings suggest that older adults’ willingness to focus on negative self-relevant information is bolstered by enhancing self-perceptions of self within the domain of interest.

Keywords: emotion, positivity, health, mood-as-resource, decision-making

In health contexts, people face situations in which they must attend to valenced information to make informed decisions. For example, one must consider both the benefits and risks of undergoing a surgical procedure or the benefits and side effects of taking a prescription drug. Older adults, who experience more health concerns as they age, are likely to encounter these types of situations, but may be less inclined to attend to the negative pieces of information than the positive. A body of research posits that older adults tend to disproportionately focus on positive information in service of emotional goals focused on promoting well-being (Carstensen & Mikels, 2005; Reed, Chan, & Mikels, 2014). However, this focus on the positive may not always be beneficial when making medical decisions that require greater perspective. Older adults tend to make more immediate medical decisions and seek less medical information than younger adults, likely due to their limited cognitive resources, greater experience, and cohort-specific views about patient-doctor interactions (e.g., Meyer, Talbott, & Ranalli, 2007). Furthermore, physicians may be sparing with patient education for older adults, as they tend to be more accepting of physicians’ opinions (e.g., Maly, Leake, & Silliman, 2003). However, uninformed, rushed decisions do not help individuals cope with a diagnosis (e.g., Berg et al., 2008). An important goal is to identify conditions under which older adults may be more willing to consider negative, but important, health-related information. In the present study, we explore the possibility that being in a positive mood or feeling good about one’s health may help older adults focus more on negative health-related information.

Regardless of age, individuals with negative views of themselves may be more likely to seek out positive feedback than those with positive views of themselves in an effort to compensate for their preexisting negative self-perception (e.g., self-enhancement theory; Taylor & Brown, 1988). Furthermore, individuals may be more likely to self-enhance in situations where their self-concept is low (e.g., Swann, Pelham, & Krull, 1989). These ideas may be particularly consequential for older adults, as declining self-perceptions of health as one ages are often coupled with increasing need for attention to health-related information that may be difficult to handle. Maintenance of physical health has been identified as a crucial component of successful aging (Schulz & Heckhausen, 1996), but may be perceived as less attainable as resources and...
opportunities become depleted. The lines-of-defense model (Heckhausen, Wrosch, & Schulz, 2013) suggests that older adults’ perception of a goal’s attainability influences whether or not they choose to engage resources in pursuit of the goal. Perceived successes and failures may contribute to perceptions of goal attainability. In the context of health, perceiving success in one area may lead older adults to mobilize efforts and gather information that may be difficult to handle initially, but helpful in terms of maintaining or improving health in the long term. Conversely, if older adults perceive that goals are unattainable, they may engage in downward comparisons or focus on self-affirming information.

Socioemotional selectivity theory (SST; Carstensen, Isaacowitz, & Charles, 1999) offers another viewpoint, suggesting that aging involves changes in one’s future time perspective, leading to an increase in focus on emotional well-being, coupled with a decrease in focus on gathering new information. As a result, older adults are often more likely than younger adults to attend to stimuli that are emotionally gratifying, resulting in disproportionate attention to positive relative to negative information when compared with young adults (Carstensen & Mikels, 2005). However, the positivity effect is not evident in all cases involving valenced information, with the effect being dependent upon various situational factors (e.g., Chung, 2010; English & Carstensen, 2015; Hess, Popham, Dennis, & Emery, 2013; Knight et al., 2007; Löckenhoff & Carstensen, 2008; Reed et al., 2014). In general, the positivity effect is more commonly identified in situations where there are no or few constraints on processing. For example, when not given specific instructions about how to gather information about doctors and health care plans, older adults attended to and remembered a greater proportion of positive versus negative information than young adults, but age differences were ameliorated when information gathering goals were activated (Löckenhoff & Carstensen, 2007). A few studies have explored the positivity effect as it relates to positively and negatively framed health care messages, finding evidence to suggest that older adults prefer and have better memory for positive versus negative messages (Shamaskin, Mikels, & Reed, 2010), and are more likely to respond with healthy behavior in response to a positive message (i.e., walking; Notthoff & Carstensen, 2014). Unfortunately, not all negative health-related information can be easily framed in a positive manner. Specifically, valence of information often aligns with helpfulness such that negative health-related information is the most helpful and informative to the decision-making process, but also places the most demands on affective resources. Additionally, individuals are usually not given specific instructions about how to gather and process information. Thus, in the present study, we aimed to distinguish a context in which older adults might be most willing to attend to negative, but helpful health-related information. To this end, we attempted to activate information gathering goals without overtly instructing participants to gather information using a specific strategy.

In a previous study (Growney & Hess, 2017), we examined the possibility that affective states might influence older adults’ willingness to focus on negative, self-relevant information. Using the mood-as-resource perspective as a backdrop (e.g., Trope, Ferguson, & Raghunathan, 2001), we tested whether being in a positive mood would make older adults more willing to expose themselves to negative information. Relative to being in a negative mood, we reasoned that older adults in a positive mood may be less focused on improving their emotional state, and more open to learning about one’s personal weaknesses and being exposed to negative about oneself. To test this, we primed individuals to feel good or bad about their cognitive abilities, and then allowed them to choose to view positive or negative feedback about a previously completed test. Compared with the young adults, older adults appeared to more effectively use positive mood as a resource. Specifically, older adults in the negative condition viewed fewer weaknesses, were less likely to view a weakness first, and spent less time viewing weaknesses than older adults in the positive condition. There were no differences in these behaviors between young adults in the positive and negative conditions. We concluded that a negative mood state may have greater implications for older than younger adults, in line with the idea that older adults tend to prioritize mood repair. Of further interest, older adults experiencing a positive emotional state did not exhibit a bias toward positive information to regulate and maintain their current emotional state, a finding seemingly in contradiction to expectations drawn from SST.

Based on these results, we decided to conduct additional research to address several important empirical and theoretical issues. First, we were interested in seeing if the effects observed in our first study generalized to a different context having to do with health-related behaviors. Second, given the apparent inconsistency of our findings with both (a) expectations derived from SST and (b) empirical results from studies with younger adults (e.g., Gasper & Zawadzki, 2013; Gervey, Igou, & Trope, 2005; Schuettler & Kiviniemi, 2006), we were interested in replicating the previously observed pattern of age effects and examining the expected effects in relation to goal orientations. Finally, we wanted to explore the mechanisms involved in any observed effects. Relevant to this last goal, although we used the mood as resource perspective to guide our research, it is unclear whether the resource underlying the willingness to entertain negative information about self is an actual affective state versus mood-related ego strength associated with a specific context.

**Study 1**

Our first study addresses these issues by investigating age differences in information-gathering associated with health-related behaviors under conditions designed to induce either positive versus negative global affective states or positive versus negative self-perceptions in the domain of health. Participants in each condition then viewed a list of article headlines presenting health issues in a positive or negative light, from which they selected a subset of the associated articles to read. Importantly, it was clear from the headlines that the reader would learn more valuable information (e.g., self-corrective) from the negative articles than the positive articles. We hypothesized that individuals in the positive conditions would select more negative articles to view than those in the negative condition, but we also predicted that manipulating health behavior perceptions would more strongly influence interest in negative health-related information than simply manipulating mood. We reasoned that positive perceptions of self within the domain of interest would bolster ego strength and thus make individuals more willing to consider potentially negative self-relevant information when compared to those individuals in the condition promoting negative perceptions of health. We also pre-
dicted that this bolstering effect would be greater than that which would occur through a simple bolstering of mood. Additionally, and consistent with our previous findings, we expected that, relative to young adults, older adults’ tendency to strive for positive emotional states would lead them to be disproportionately affected by the negative manipulation of health behavior perceptions. Relevant to this last prediction, we also explored the possibility that the impact of the health-based manipulation would have its impact on behavior through changes in goal orientation associated with affective or information-seeking goals.

Method

All procedures were approved by North Carolina State University’s institutional review board.

Participants. Individuals were recruited through Amazon’s Mechanical Turk (MTurk), with selection criteria specifying that only those living in the United States with at least a 95% approval rating from requesters on other tasks they completed could participate. Participants were 201 younger adults aged 20–40 years and 196 older adults aged 65–80 years. Participant characteristics are displayed in Table 1. Typical of most research on aging, younger adults reported better physical health and fewer chronic conditions than older adults, whereas older adults reported better mental health than younger adults. However, there were no significant differences in depression scores between young and older adults. The age groups did not differ in education levels. Importantly, there were no significant differences associated with our experimental conditions for any of the characteristics displayed in the table. Participants received $2.00 for their efforts and time, which is considered average-generous for MTurk studies of similar duration.

Design. We used a 2 (Age Group: young vs. old) × 2 (Manipulation Type: traditional mood manipulation vs. health perspective manipulation) × 2 (Valence of Manipulation: positive vs. negative) between-subjects factorial design.

Materials.

Traditional mood manipulation task. Twenty-four images from the International Affective Picture System (IAPS; Lang, Bradley, & Cuthbert, 2008) that contained people were used for the traditional mood manipulation.

1 We selected 12 positive images ($M_{valence} = 7.39$ [SD = 1.62]; $M_{arousal} = 5.07$ [SD = 2.23]) and 12 negative images ($M_{valence} = 2.92$ [SD = 1.74]; $M_{arousal} = 5.38$ [SD = 2.16]) based on ratings from the IAPS norms for use in respective conditions. Positive and negative images did not differ significantly in arousal.

Health behavior perception manipulation task. We designed two different checklists for purposes of influencing self-perceptions of health behaviors (see Table 2). The checklist in the negative condition was intended to make respondents feel as though they engaged in many unhealthy behaviors and few healthy ones. It included six behaviors that many people do, but are seen as negative, along with six behaviors that are less common, but seen as positive. In contrast, the checklist in the positive condition was designed to do the opposite, and included six positive behaviors that many people do, as well as six negative behaviors that we expected most people would not endorse. The checklists were designed so that most people would endorse the negative behaviors but not the positive behaviors as being typical for them on the negative checklist, whereas the opposite would be expected for the positive checklist. Presentation order of the items on the checklists was randomized.

Goal assessment. To measure the prioritization of emotion goals versus information-seeking goals, we used the Goal Prioritization Inventory (GPI), which we developed and used in a previous study (Growney & Hess, 2017). The scale lists eight goal-related statements, four of which are related to emotion regulation and four of which are related to information gathering (see Table 3). To assess state-specific goals, participants were asked to indicate the extent to which each statement matches how they were feeling at that moment, with 1 indicating that the statement was not at all descriptive of their current feelings and 7 indicating that the statement was very descriptive of their current feelings. To validate the two-factor structure of this scale, we conducted a factor analysis using principal-axis factoring with a varimax rotation. We found a two-factor solution, with items loading on to each subscale as expected (see Table 3). The first factor (i.e., information gathering) explained 38.3% of the total variance, whereas the second factor (i.e., emotion regulation) explained an additional 16.3% of variance. Due to some cross-loadings for two of the items on the scale, we decided to use factor scores as indicators of goal priorities in our analyses.

Information articles. A set of six articles served as a means for determining interest in health-related information. This set contained two articles from each of the following topics: physical activity, nutrition, and sleep. Importantly, these are the three topics covered on the health checklist. For each topic, one of the article headlines presented the topic in a more “positive” way, suggesting that the reader is probably already doing well in that particular area, and the other article headline presented the topic in a more “negative” but realistic way, suggesting that the reader would learn something about how to change unhealthy habits. Importantly, the negative headlines were intentionally more informative than the positive headlines, as it is often the case in health contexts that information that may be difficult to handle is the most informative or prescriptive. Participants read, “We would like to know what types of articles interest you. Please read the following list of article headlines, and select three to read.” Thus, interest in the negative articles was operationalized by the number of negative articles selected. Headlines are displayed in Table 4.

Additional measures. The SF-8 Health Survey (Ware, 2001) was used to measure self-rated physical and mental health assessed over the previous four weeks. The SF-8 includes eight items which each represent a subscale on longer versions of the measure: General Health, Physical Functioning, Role Physical, Bodily Pain, Vitality, Social Functioning, Mental Health, and Role Emotional. Participants read, “Overall, how would you rate your health during the past 4 weeks” could range from “excellent” to “very poor,” whereas responses to the Physical Functioning item, “During the past 4 weeks, how

1 IAPS pictures used in each category—negative: 2691, 6212, 6244, 6312, 6550, 6840, 2053, 2205, 2276, 2312, 2900, 2410; positive: 2165, 2216, 2360, 2395, 2530, 2560, 8497, 8116, 8370, 8380, 8461, 8490.
I am physically fit enough to do most or all daily tasks without assistance. (+, e)
I sometimes take walks or do other activities to get exercise. (+, e)
I try to follow a regular sleep schedule. (+, s)
I get enough sleep for me to function well most or all days. (+, s)
I eat a large dessert on most days. (–, n)

I try to eat at least 1 fruit or vegetable every day. (+, n)
When I have sweets, I usually try not to overindulge. (+, n)
I exercise for at least 90 min every day. (+, e)
I never have difficulty falling asleep at night. (+, s)
I always wake up feeling full of energy. (+, s)
I sometimes eat more than the recommended serving size when snacking. (–, n)
I sometimes indulge in sweets that I enjoy even though they are not healthy. (–, n)

I tend to have difficulty walking around the block. (–, e)
I am sedentary for most of the time on most days. (–, e)
I need to drink five or more cups of coffee a day in order to not feel drowsy. (–, s)
After getting into bed, it usually takes me longer than 2 hr to fall asleep. (–, s)

I monitor my calorie intake and am certain that I get the recommended amount of calories in a day. (+, n)
I get at least six servings of fruit and vegetables daily. (+, n)
I get a good mix of cardio and strength training every day. (+, e)
I exercise for at least 90 min every day. (+, e)
I never have difficulty falling asleep at night. (+, s)
I always wake up feeling full of energy. (+, s)
I sometimes eat more than the recommended serving size when snacking. (–, n)
I sometimes indulge in sweets that I enjoy even though they are not healthy. (–, n)

Note. Both checklists included two positive (+) and two negative (–) items from the categories of nutrition (n), exercise (e), and sleep habits (s). On the positive checklist, positive items were “likely” and negative items were “unlikely,” with the opposite being true for the negative checklist. Items were listed in a randomized order.
Table 3

Factor Loadings for Goal Prioritization Inventory

<table>
<thead>
<tr>
<th>Item on scale: Study 1: “I would like to . . .” Study 2: “When gathering information about health, I would like to . . .”</th>
<th>Study 1</th>
<th>Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Information subscale (Factor 1)</td>
<td>Emotion subscale (Factor 2)</td>
</tr>
<tr>
<td>. . . gain more knowledge.</td>
<td>.78</td>
<td>.09</td>
</tr>
<tr>
<td>. . . learn more about new things that benefit me.</td>
<td>.80</td>
<td>.18</td>
</tr>
<tr>
<td>. . . know how I can improve myself.</td>
<td>.67</td>
<td>.43</td>
</tr>
<tr>
<td>. . . avoid situations where I have little to learn.</td>
<td>.30</td>
<td>.18</td>
</tr>
<tr>
<td>. . . focus on things that make me feel happy.</td>
<td>.19</td>
<td>.47</td>
</tr>
<tr>
<td>. . . prevent myself from feeling bad.</td>
<td>.15</td>
<td>.58</td>
</tr>
<tr>
<td>. . . focus on my feelings and emotions.</td>
<td>.18</td>
<td>.52</td>
</tr>
<tr>
<td>. . . improve my mood.</td>
<td>.09</td>
<td>.58</td>
</tr>
</tbody>
</table>

Note. Factor scores were derived from a principal axis factoring analysis with varimax rotation.

Table 4

Positive Headlines Negative Headlines

Study 1
Super-foods for Super-agers: Hidden nutrients in 10 foods you’re probably already eating (n)
New studies suggest older adults are getting physical activity without realizing it: Simple exercises you are probably already doing every day (e)
Researchers say varied sleep patterns are normal part of aging (s)
Older adults can eat their favorite foods and still be healthy (n)
Many older adults meet exercise goals through fun activities (e)
Older adults enjoy numerous health benefits from following a regular sleep schedule (s)
Study 2: High-informative headlines
Older adults can eat their favorite foods and still be healthy; Easy ways to modify your favorite comfort foods to be healthier (n)
Many older adults meet exercise goals through fun activities;
Recommendations from the World Health Organization (e)
Older adults enjoy numerous health benefits from following a regular sleep schedule: Tips for a good night’s sleep (s)

Is your diet aging you faster? Super-agers share 10 foods to avoid for healthy aging (n)
New studies suggest link between lack of physical activity and dementia: Tips for staying fit physically and mentally (e)
Researchers say sleep problems may be an early sign of Alzheimer’s (s)
Many older adults not getting enough calcium and vitamin D to maintain bone strength (n)
Most Americans above age 50 fail to attain recommended levels of exercise (e)
Study shows many older adults have difficulty falling asleep (s)
Many older adults not getting enough calcium and vitamin D to maintain bone strength: Bone-healthy foods missing from your grocery list (n)
Most Americans above age 50 fail to attain recommended levels of exercise: Exercise advice from personal trainers (e)
Study shows many older adults have difficulty falling asleep: Advice from the American Sleep Association (s)

Note. Article lists included one positive and one negative item from the categories of nutrition (n), exercise (e), and sleep habits (s).
Results and Discussion

Manipulation checks.

Responses to stimulus materials. Our first manipulation check was to determine that participant responses to the images and health checklist were as intended. For the traditional mood manipulation, we examined participants’ ratings of the images they viewed. To do so, we combined the raw valence and intensity scores given to each image into a single measure by transforming the original valence scores of 1 to 7 to a scale of −3 to +3, and then multiplying these values by the raw intensity scores. Mean ratings for the 12 images viewed by each participant (see Table 5) were then examined using a 2 (Age Group) × 2 (Valence Condition) analysis of variance (ANOVA). Consistent with our intentions, ratings of images in the negative condition (M = −11.22; SD = 4.46) were significantly more negative than those in the positive condition (M = 10.30; SD = 3.78), F(1, 194) = 1,450.34, p < .001, η² = .88. There was no main effect of age group, but the Age Group × Valence Condition interaction was significant, F(1, 194) = 17.43, p < .001, η² = .08, due to the difference in ratings between conditions being somewhat greater in the old group.

To determine whether participants in the health checklist conditions completed the positive and negative lists as expected, we coded each negative item checked as −1 and each positive item as 1, with unchecked items assigned 0. We then calculated the sum of all 12 items, creating health scores that could range from −6 to +6. A 2 (Age Group) × 2 (Valence Condition) ANOVA revealed that scores in the negative condition (M = −3.17; SD = 2.47) were significantly lower than those in the positive condition (M = 3.93; SD = 1.85), F(1, 195) = 523.29, p < .001, η² = .73. No other effects were significant (ps > .34). Taken together, these two sets of results indicate that participants were responding to the mood and health manipulation stimuli as intended, with similar patterns of responses across age groups.

Self-ratings. We next examined whether participants’ subjective responses varied as intended in response to our experimental manipulations. We first examined mood ratings at three assessment points to see if our mood manipulation had the intended effect and to determine if the effect was specific to the traditional mood manipulation. As with the picture ratings, we transformed the valence scores to a scale of −3 to +3, and then multiplying these values by the raw intensity scores. Mean ratings for the 12 images viewed by each participant (see Table 5) were then examined using a 2 (Age Group) × 2 (Valence Condition) × 3 (Time of Assessment) mixed ANOVA on these scores, and found a significant effect of time, F(2, 388) = 15.97, p < .001, η² = .04, as well as an interaction between time, valence condition, and manipulation type, F(2, 388) = 18.89, p < .001, η² = .05. In follow-up univariate ANOVAs, we found no significant effects at Time 1 or Time 3 (all ps > .07), indicating participants across conditions and age groups had comparable moods before beginning and after finishing the study. However, immediately after the manipulation (Time 2), we found a main effect of valence condition, F(1, 389) = 18.77, p < .001, η² = .05, which was modified by a two-way interaction between valence condition and manipulation type, F(1, 389) = 19.29, p < .001, η² = .05. As seen in Table 5, the interaction was clearly driven by those who received the traditional mood manipulation. Comparisons within each manipulation condition revealed a significant effect of valence for those in the mood manipulation condition (p < .001), but not for those who completed the health rating task (p = .99).

We next examined whether our health manipulation affected participants’ perceptions of their health-related behaviors. Although we had no explicit measure of these perceptions, we identified two subscores of the SF-8 that indicate one’s perceptions of how much physical or emotional health problems limit engagement in regular activities (i.e., Role Emotional and Role Physical scores) as items of interest. There were no effects of condition when examining SF-8 scores as a whole, but we suggest that these specific subscores are most related to what we intended to manipulate (i.e., perceptions of one’s engagement in healthy activities), and they were moderately correlated, r = .47, p < .001. Thus, we took the average of the two subscores and examined them using a 2 (Age Group) × 2 (Manipulation Types) × 2 (Valence Condition) ANOVA. There was a significant main effect of valence condition, F(1, 388) = 4.13, p = .04, η² = .01, which was modified by a significant three-way interaction, F(1, 388) = 6.00, p = .02, η² = .02. All other effects were not significant (ps > .10). To deconstruct the interaction, we conducted separate 2 (Age Group) × 2 (Valence Condition) ANOVAs within each manipulation type condition. There were no significant effects in the mood manipulation condition (ps > .07). However, for those in the health manipulation condition, there was a significant main effect of valence condition, F(1, 195) = 6.90, p = .009, η² = .03, indicating that those in the negative condition (M = 46.56; SD = 0.64) had more negative perceptions of their health than those in the positive condition (M = 48.94; SD = 0.64). There was also a significant main effect of age group, F(1, 195) = 6.69, p = .01, η² = .03, indicating that older adults (M = 46.58; SD = 0.65) had more negative perceptions of their health than those in the young adults (M = 48.92; SD = 0.63). Importantly, Age Group × Valence interaction was not significant, (p > .11), suggesting that the effect of our health manipulation was not dependent upon age group. In sum, the results of these analyses support the effectiveness and specificity of our experimental manipulations, both with respect to responses to the stimuli and the impact on self-perceptions.

Interest in negative health-related articles. Our primary focus was on the impact of age and our experimental manipulations on the number of negative articles selected, which we examined using a 2 (Age Group) × 2 (Valence Condition) × 2 (Manipulation Type) ANOVA. A significant main effect of valence was obtained, F(1, 383) = 7.94, p = .005, η² = .02, which was moderated by both manipulation type and valence condition, F(1, 383) = 8.51, p = .004, η² = .02 (see Figure 1). The effect size associated with the interaction is rather small, but subsequent comparisons revealed stronger effects associated with the comparisons of interest. Specifically, to further examine the significant 3-way interaction, we performed separate 2 (Age Group) × 2

Given the age or group differences in gender and some health-related variables (Table 1), we included these as covariates in all of our analyses. In no case were the covariates significant. Therefore, the reported results do not include these covariates.
Table 5

Ratings of Images, Mood, Health Behavior Perceptions (HBPs), and Goal Priorities for Young and Older Adults in Positive and Negative Traditional Mood Manipulation Conditions in Study 1 and Older Adults in Positive and Negative Low-Informative and High-Informative Headline Conditions in Study 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Study 1</th>
<th>Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Young adults</td>
<td>Older adults</td>
</tr>
<tr>
<td>Image ratings</td>
<td>8.92 (3.67)</td>
<td>10.22 (5.24)</td>
</tr>
<tr>
<td>Health Checklist scores</td>
<td>3.45 (2.51)</td>
<td>2.88 (2.42)</td>
</tr>
<tr>
<td>SF-8 Role subscale scores</td>
<td>48.06 (6.03)</td>
<td>46.10 (7.26)</td>
</tr>
</tbody>
</table>

**Figure 1.** Interest in negative health-related information as a function of age group (young/older), valence condition (negative/positive), and manipulation type (mood/health behavior perception manipulation). Error bars represent 95% confidence intervals.

(Valence Condition) ANOVAs within each manipulation condition. No significant effects ($p$s > .12) were obtained in the traditional mood manipulation condition. In contrast, in the health condition, a significant main effect of valence was obtained, $F(1, 195) = 11.10, p = .001, \eta^2_p = .05$, along with a significant Age × Valence interaction, $F(1, 195) = 8.09, p = .005, \eta^2_p = .04$. We explored this interaction by comparing valence conditions within each age group. For the young adults, this comparison was not significant ($p = .72$), with those in the negative health condition ($M = 1.31, SD = 0.68$) selecting a similar number of negative articles as those in the positive health condition ($M = 1.36, SD = 0.76$). In contrast, older adults in the negative health condition ($M = 1.10, SD = 0.81$) selected significantly fewer negative articles than those in the positive health condition, $(M = 1.76, SD = 0.77), F(1, 95) = 17.14, p < .001, \eta^2_p = .15$, reflecting a medium-large effect size. Taken together, these findings indicate that the effect of valence on the intent to read negative health-related information was specific to both the health condition and older adulthood, a finding consistent with our expectations.

**Goal priorities.** We next investigated whether participants in different conditions and age groups varied in their reported goal priorities after completing the image rating or health checklist tasks. We first conducted a $2$ (Age Group) × $2$ (Valence Condition) × $2$ (Manipulation Type) ANOVA on the GPI emotion factor score and found no significant effects ($all \; p s > .14$). The same analysis performed on the GPI information factor scores revealed a significant effect of valence condition, $F(1, 389) = 12.05, p < .001, \eta^2_p = .04$, due to those in the positive condition ($M = 1.18, SD = .06$) having higher information goals than those in the negative condition ($M = .76, SD = .06$). There was also a significant three-way interaction, $F(1, 389) = 5.73, p = .02, \eta^2_p = .02$. To decompose this interaction, we ran separate $2$ (Age Group) × $2$ (Valence Condition) ANOVAs for each of the manipulation types. In the traditional mood manipulation condition, there was an effect of age group, $F(1, 194) = 4.30, p = .04, \eta^2_p = .02$, with older adults ($M = 0.06, SD = 0.80$) having higher information goals than young adults ($M = .02, SD = 0.96$), as well as an effect of valence condition, $F(1, 194) = 11.89, p = .001, \eta^2_p = .06$, with those in the positive condition ($M = 0.14, SD = 0.68$) having higher information goals than those in the
negative condition \(M = -0.29, SD = 1.02\). These effects were qualified by an Age \(\times\) Valence interaction, \(F(1, 194) = 6.31, p = .01, \eta^2_p = .03\), due to particularly low information goals for young adults in the negative mood condition \(M = -0.56, SD = 1.05\).

In the health behavior perception manipulation conditions, there was only a significant effect of valence, \(F(1, 195) = 3.93, p = .02, \eta^2_p = .03\), with those in the positive condition \(M = 0.22, SD = 0.73\) having higher information goals than those in the negative condition \(M = -0.07, SD = 1.00\). Thus, our manipulation of health behavior perception was similarly associated with information goals across age groups.

**Mediation analyses.** After determining that the valence of the manipulation influenced preferences for negative information in the context of health, but not a traditional mood manipulation, we explored goal priorities as potential mechanisms through which perceptions of one’s health might influence preferences for negative health-related information. To avoid having a categorical predictor variable (valence condition), we replaced our assigned conditions with participants’ health checklist scores, which could range from \(-6\) to \(+6\). This made our predictor variable sensitive to the effectiveness of our manipulation. Additionally, it allowed us to account for individuals who may have endorsed more of the “unlikely” than the “likely” behaviors on our checklists, thus constituting a response pattern opposite to that intended. We first examined mood as a mediator, using reports of mood at Time Point 2 (after filling out the health checklist). A mediation analysis using PROCESS Model 4 (Hayes, 2013) revealed no significant mediation, a result that is consistent with the previously reported finding of the traditional mood manipulation having no impact on selection of negative articles.

We then examined goal priorities (indicated by factor scores from the GPI information subscale) as a mediator of the relationship between manipulated health behavior perceptions (as indicated by health checklist scores) and interest in negative health-related information. Noting the age group specificity of previously reported effects, we also examined possibility that age might moderate the relationship between health checklist scores and interest. Accordingly, we tested for simultaneous mediation and moderation using PROCESS Model 5 (Hayes, 2013; see Figure 2). Results yielded a conditional direct effect of health checklist scores on interest such that the effect was significant for older adults, \(B = .06, SE = .02, p < .001, 95\% \text{ confidence interval (CI)} [.03, .10]\), but not young adults, \(B = .004, SE = .02, p = .83, 95\% \text{ CI } [-.03, .04]\) indicating a moderation relationship.

Notably, the indirect effect of health checklist scores on interest was not significant, \(B = .01, SE = .003, 95\% \text{ CI } [.000, .01]\), as information goals no longer significantly predicted interests when including age as a moderator, \(B = .11, SE = .06, p = .08, 95\% \text{ CI } [-.01, .23]\).

Noting that the results reported above were predicated on the assumption that health checklist scores indicated perceptions of health behaviors, we wanted to examine whether a self-report measure of health behavior perceptions following the manipulation might fit into our model in the place of health checklist scores. We unfortunately did not include an explicit manipulation check of health behavior perceptions in the present study. However, we identified the score derived from Role Physical and Role Emotional subscales of the SF-8 as a self-report measure that is similar to what we intended to manipulate. We acknowledge that this score actually measures perceptions of the degree to which one’s physical and emotional health interfere with engaging in certain behaviors, rather than perceptions of behavior engagement. However, we decided to move forward with this analysis and note the limitations of using this ad hoc indicator. Thus, we tested for simultaneous mediation and moderation using PROCESS Model 5 using the previously described summary score created from SF-8 Role Physical and Role Emotional values as an, albeit imperfect, measure of manipulated health behavior perceptions. As before, we found a conditional direct effect of SF-8 Role subscales on interest such that the effect was significant for older adults, \(B = .03, SE = .01, p = .02, 95\% \text{ CI } [.004, .05]\), but not for young adults, \(B = -.01, SE = .01, p = .54, 95\% \text{ CI } [-.03, .02]\) indicating a moderation relationship. In contrast with the previous model, the indirect effect of SF-8 Role subscales on interest remained significant, \(B = .02, SE = .004, 95\% \text{ CI } [.01, .02]\), when including age as a moderator, indicating simultaneous mediation and moderation.

In sum, we found that exposure to an experimental manipulation that biased self-perceptions of health influenced older adults’ willingness to consider negative health-related information. Specifi-
cally, older adults primed to experience positive self-perceptions of health were subsequently more interested in reading negative health-related articles than were older adults primed to experience more negative self-perceptions. This effect of valence was not present in young adults—replicating our previous findings in the cognitive domain (Grouweny & Hess, 2017)—or for those who completed a traditional mood manipulation task. These findings suggest that self-perceptions in a relevant domain, rather than general affect, determine willingness to attend to negative versus positive information. We also found that this same experimental manipulation influenced information-seeking goal priorities (i.e., positive self-perceptions associations with greater goals), which in turn mediated the relationship between manipulated health behavior perceptions and interest in negative health-related information. Importantly, this effect was moderated by age, with mediation strongest in the older group.

Study 2

Although the results of our first study were generally consistent with expectations, a few caveats should be considered. First, our manipulation check following the health checklist task relied on an ad hoc measure (i.e., SF-8 subscores) that was not specifically designed to serve this role and that was not temporally contiguous to the manipulation, making it an arguably suboptimal assessment. Second, we did not control for the perceived informational value of the article headlines. An examination of the headlines suggests that there may be slightly more information value associated with the negative than the positive headlines, leading to the possibility that information value of the content, as opposed to the valence of the content, influenced participants’ responses. Finally, the GPI provided a general assessment of a measure of goals related to general information gathering rather than one specifically focused on health-related information. To address these concerns, we conducted a second study that included (a) an explicit manipulation check of participants’ perceptions of their health behaviors immediately following the health checklist task, (b) an additional condition that systematically varied the informativeness of the article headlines, and (c) a modified version of the GPI that specifically focused on health-related information.

Method

Participants. A new sample of 199 older adults aged 65–85 years was recruited through MTurk with the same selection criteria used in Study 1. Participant characteristics are displayed in Table 1. Individuals were paid $2.00 for participating.

Materials. We used the same mood assessments, health behavior perception manipulation task, and measures of health, depression, and chronic conditions previously reported in Study 1. The following materials were either added or modified in the present study.

Health behavior perception assessment. We designed a Health Behavior Perception (HBP) Questionnaire as a manipulation check with four items on it intended to gauge the degree to which participants felt good or bad about their health behaviors following the health checklist task. On a Likert scale of 1 (disagree) to 9 (agree), participants responded to the following items: “I think I engage in a good amount of healthy behaviors on a regular basis,” “I think I ought to engage in more healthy behaviors on a regular basis” (reverse-coded), “I feel positive about my health behaviors,” and “I feel negative about my health behaviors” (reverse-coded).

Goal assessment. To assess goal priorities specifically related to health, we modified the GPI by replacing the phrase “I would like to...” with “When gathering information about health, I would like to...” Cronbach’s alpha was .69 for the emotion subscale, .75 for the information subscale, and .71 for the scale overall. Factor loadings are presented in Table 3.

Information articles. We created two sets of article headlines: a high-informative set that presented a statement followed by some indication that there would be helpful information included in the article, and a low-informative set that presented only a statement. Each set had both positive and negative headlines, and included topics relating to nutrition, exercise, and sleep. To confirm our a priori assumptions about these headlines, we pilot tested them by having a sample of 21 older adults on MTurk rate the informativeness, negativity, and positivity of each headline on Likert scales of 1 to 7. We conducted a 2 (A Priori Informativeness) × 2 (A Priori Valence) ANOVA on the informativeness ratings and found a main effect of informativeness, $F(20, 1) = 13.34, p = .002$, $\eta^2_p = .40$, indicating that participants rated our high-informative headlines ($M = 5.85, SD = 1.11$) as significantly more informative than our low-informative headlines, ($M = 5.21, SD = 1.04$). There were no effects associated with valence ($ps > .22$), indicating that our positive and negative headlines did not differ in informativeness. Similar analyses conducted on the emotion ratings revealed only a main effect of valence for both positivity ratings ($M_{positive} = 5.71, SD = 1.10; M_{negative} = 4.39, SD = 1.43$), $F(20, 1) = 13.35, p = .002, \eta^2_p = .40$, and negativity ratings ($M_{positive} = 1.88, SD = 0.63; M_{negative} = 3.13, SD = 1.28$), $F(20, 1) = 14.26, p = .001, \eta^2_p = .42$. There were no effects associated with informativeness. Thus, information value of the headlines did not covary with valence. Article headlines are presented in Table 4.

Procedure. We followed the same procedure reported in Study 1 with two additions. First, the HBP questionnaire was given immediately after participants filled out the health checklist. Second, half of the participants chose from six low-informative headlines and half chose from six high-informative headlines. As in Study 1, each participant saw one negative and one positive headline relating to nutrition, exercise, and sleep, respectively.

Results and Discussion

Manipulation checks and preliminary analyses. We performed a series of manipulation checks (see Table 5) similar to those reported in Study 1.

Responses to stimulus materials. We first created health checklist scores ranging from −6 to +6 using the same method previously reported, and conducted a 2 (Valence Condition) × 2 (Headline Informativeness) ANOVA. As expected, we found a main effect of valence condition, $F(1, 195) = 136.50, p < .001$, $\eta^2_p = .41$, indicating that those in the negative condition ($M = −1.25; SD = 2.62$) had more negative health scores than those in the positive condition ($M = 3.33; SD = 2.51$). All other effects were not significant ($ps > .41$), indicating that those who
subsequently saw high versus low-informative headlines did not differ in their responses.

**Self-ratings.** To calculate scores of participants’ perceptions of their health behaviors following the health checklists, we reverse-coded the two negative items in the HBP questionnaire and then calculated the mean of the four items. A 2 (Valence Condition) × 2 (Headline Informativeness) ANOVA conducted on these scores revealed the expected main effect of valence condition, \( F(1, 195) = 10.13, p < .001, \eta^2_g = .05 \), indicating that those who completed the positive checklists had more positive perceptions of their health behaviors (\( M = 5.72, SD = 1.20 \)) than those who completed the negative checklists (\( M = 5.13, SD = 1.11 \)). No other effects were significant (\( ps > .44 \)).

We also examined mood using the same method of calculating mood scores used in the first study. A 2 (Valence Condition) × 2 (Headline Informativeness) ANOVA on these scores revealed a significant effect of time, \( F(2, 390) = 5.47, p = .005, \eta^2_g = .03 \), as well as an interaction between time and valence condition \( F(2, 390) = 5.17, p = .007, \eta^2_g = .03 \). There were no effects associated with headline informativeness (\( ps > .26 \)). We followed-up with univariate one-way ANOVAs examining valence condition effects on mood at each of the time points. We found no significant effects at Time 1 or Time 2 (all \( ps > .15 \)), indicating that participants who filled out the differently valenced checklists did not differ in mood before or after completing the checklists. However, there was an effect of valence condition at Time 3 (recorded at the end of the study), \( F(1, 195) = 4.67, p = .03, \eta^2_g = .02 \), indicating that those in the positive condition, \( M = 16.50; SD = 12.02 \) felt more positive at the end of the study than those in the negative condition, \( M = 12.78; SD = 12.46 \).

**Interest in negative health-related articles.** To investigate the nature of participants’ article interest, we conducted a 2 (Valence Condition) × 2 (Headline Informativeness) ANOVA on the total number of negative articles participants selected. There was a significant effect of headline informativeness, \( F(1, 195) = 12.25, p = .001, \eta^2_g = .06 \), indicating that those in the high-informative conditions (\( M = 1.56, SD = 0.76 \)) selected more negative articles than those in the low-informative conditions (\( M = 1.21, SD = 0.69 \)). Importantly, there was also a significant interaction between valence and informativeness, \( F(1, 195) = 7.13, p = .008, \eta^2_g = .04 \) (see Figure 3). Follow-up analyses revealed that the valence effect was significant in the high-informative condition, \( F(1, 98) = 10.22, p = .002, \eta^2_g = .09 \), with more negative articles selected in the positive condition \( (M = 1.80, SD = 0.81) \) than in the negative condition \( (M = 1.33, SD = 0.62) \) (see Figure 3). In contrast, there was no significant effect of valence for low-informative headlines, \( F(1, 97) = 0.28, p = .60, \eta^2_g = .003 \), with the number of negative headlines selected being relatively low in both the positive condition \( (M = 1.17, SD = 0.74) \) and the negative condition \( (M = 1.25, SD = 0.64) \).

**Goal priorities.** We calculated GPI information and emotion factor scores using the same method described in Study 1, and we conducted 2 (Valence Condition) × 2 (Headlines Informativeness) ANOVAs on each of them. Given that the GPI was completed prior to exposure to the headlines, no impact of informativeness was expected. As before, there were no significant results with the analysis of the GPI emotion subscale (\( ps > .44 \)). Analysis of the GPI information subscale, however, once again revealed a significant effect of valence, \( F(1, 195) = 6.48, p = .01, \eta^2_g = .03 \), with those in the negative condition \( (M = -0.17; SD = 1.10) \) reporting lower health-related information goals than those in the positive condition \( (M = 0.16; SD = 0.70) \). No other effects were significant (\( ps > .42 \)). Factor loadings are presented in Table 3, and mean scores for each condition are presented in Table 5.

**Mediation analyses.** In our final set of analyses, we first eliminated the possibility that mood might serve as a mediator by examining Time 3 mood scores in mediation models with manipulated health and health checklist scores as predictors. After finding no mediation associated with mood, we next examined the possibility of moderated mediation with goal priorities mediating the relationship between health behavior perceptions and number of negative articles selected, but with mediation moderated by informativeness condition. Using participants’ self-reports of health behavior perceptions from the HBP questionnaire following the health checklist task, we tested for moderated mediation using PROCESS Model 15 (Hayes, 2013). We found that health behavior perceptions predicted information goal priorities for our entire sample, \( B = 0.25, SE = 0.05, p < .001 \). Using the bootstrap estimation approach with 5,000 samples, we tested the direct effect of health behavior perceptions on selection of negative articles, and found a conditional direct effect such that health behavior perceptions had a direct effect on article selection for those who viewed high-informative headlines, \( B = 0.13, SE = 0.06, p = .04 \), but there was no direct effect for those who viewed low-informative headlines, \( B = 0.02, SE = 0.06, p = .66 \). Similarly, there was a conditional indirect effect of health behavior perceptions on article selections such that the effect was significant for those in the high-informative conditions, \( B = 0.05, SE = 0.02, CI [0.01, 0.10] \), but not for those in the low-informative conditions, \( B = 0.01, SE = 0.02, CI [-0.02, 0.06] \), indicating that goal priorities mediated this relationship only for those who viewed high-informative headlines.

We repeated this analysis using health behavior perceptions derived from health checklist scores, with results mirroring those obtained in Study 1. Specifically, health behavior perceptions predicted information-goal priorities for our entire sample, \( B = 0.08, SE = 0.02, p < .001 \). We tested the direct effect of health checklist scores on selection of negative articles using the bootstrap estimation approach with 5,000 samples, and found a condi-
tional direct effect such that health behavior perceptions had a direct effect on article selection for those who viewed high-informative headlines, $B = 0.06, SE = 0.02, p = .007$, but there was no direct effect for those who viewed low-informative headlines, $B = -0.03, SE = 0.02, p = .21$. Similarly, there was a conditional indirect effect of health checklist scores on article selections such that the effect was significant for those in the high-informative conditions, $B = 0.2, SE = 0.01, CI [0.01, 0.03]$, but not for those in the low-informative conditions, $B = 0.01, SE = 0.01, CI [-0.01, 0.02]$, indicating that goal priorities mediated this relationship only for those who viewed high-informative headlines (see Figure 4).

To summarize, we essentially replicated the findings from the health checklist condition in Study 1, both in terms of the effects of the health checklist manipulation on article interest and the mediation of the effect of self-perceptions of health on interest through information goal prioritization. Notably, this study extended the findings of the first study by demonstrating that these effects were most evident in articles that were considered relatively high in informativeness regarding health behaviors. This finding is consistent with one of the assertions of the mood-as-resource framework that states that mood will only serve as a resource in information gathering when such information is relevant or useful to the individual. Note also that the effects of Study 1 generalized to the present situation in which a more optimal check of the health manipulation was used and in which the GPI was specifically geared toward health behaviors.

**General Discussion**

The present research was designed to examine the conditions that would promote older adults’ attention to negative, but personally relevant information. Consistent with our previous research (Growney & Hess, 2017), we found that bolstering perceptions of self within the behavioral domain of interest resulted in greater willingness to entertain self-relevant negative information, with this effect being specific to older adults and situations where the information to be gathered has some informative value. Importantly, we extended our findings to a new context having to do with health-related behaviors, thereby suggesting that our previous results having to do with cognitive ability were not specific to that domain of behavior.

A critical aspect of the present research was the identification of the resources that influence differential attention to either positive or negative personally relevant information. Although we used the mood-as-resource framework (Troepe et al., 2001) as a basis for our research, the perspective is somewhat vague in its explanation of how mood affects preferences, attention, and behavior. Specifically, is it mood itself that serves as a resource or is the hypothesized affective resource related to some other more fundamental mechanism? In our previous study (Growney & Hess, 2017), our experimental manipulation confounded self-perceptions in a relevant domain (i.e., cognitive ability) with mood. Thus, we were unable to conclude confidently whether older adults were using positive mood as a resource in gathering information about performance or positive perceptions about their cognitive ability. However, in unpublished analyses on those data, we found no evidence that self-reported mood mediated the relationship between our experimental conditions and outcomes. In the present study, we obtained more conclusive evidence that it is not mood itself that influences attention to positive or negative information, but rather a mood-related resource based in perceptions of self in the domain of interest. In our case, feeling good or bad about one’s health influenced the degree to which older adults were interested in learning more about positive or negative health-related information; simply feeling good or bad in general did not have this same effect. We suggest that the mood-as-resource label is something of a misnomer, and that one must target an individual’s self-perception in a relevant domain to influence subsequent preferences, attention, and behavior.

Many of the limitations associated with Study 1 were addressed in Study 2. In Study 1 we did not include a manipulation check and instead used a score derived from SF-8 Role Physical and Role Emotional subscale as a predictor in our model. Interestingly, these self-reports of the degree to which health affects engagement in certain behaviors fit into our model similarly to our health checklist score and HBP score from Study 2. One possibility is that participants who were made to perceive their levels of engagement in healthy behaviors as high or low were inclined to attribute these perceived levels to emotional or physical health concerns. Our HBP questionnaire added to Study 2 confirmed that we manipulated perceptions of health behaviors and that these explicitly measured perceptions predicted interest in negative health-related information.
information, with information goal priorities specifically relating to our domain of interest mediating the relationship. Our addition of low and high-informative headline conditions in Study 2 addressed the concern that the negative and positive headlines used in Study 1 may have differed in informativeness as well as valence. We found that results from Study 1 were replicated only in the high-informative headlines conditions, with older adults who felt positive about their health behaviors showing relatively high levels of interest in negative health article headlines only when those headlines suggested that the article offered helpful advice or information. This suggests that older adults may perceive that it is only worth looking at negative information if it is highly informative, further delineating the context in which older adults may be able to successfully use positive self-perceptions as a resource in handling negative information.

In the present study, we replicated some findings from our earlier study (Growney & Hess, 2017), which on the surface appear to be inconsistent with SST. This theory suggests that older adults tend to be more positive and are more concerned with maintaining positive affective states compared with young adults. According to SST, relative to younger adults, this chronic emotion-focused goal should lead older adults to disproportionately attend to positive information to maintain affective well-being. Some research has suggested, however, that the presumed chronic emotion goals associated with late life may be overriden by situational goals associated with potentially negative affective circumstances (e.g., coping with an illness), resulting in the absence of a positivity effect (English & Carstensen, 2015; Reed & Carstensen, 2012). The results of both our previous and current studies are examples of situational goals taking precedence over emotional goals that are chronically activated, but suggest that in order for these situational goals to take precedence, older adults must have sufficient resources relating to their feelings about themselves in the target domain. Specifically, we observed that older adults in positive states do not necessarily focus on positive information with the goal of maintaining positive affect, but rather appear predisposed to the consideration of negative information when feeling positive about themselves. Notably, they also do not need to be experiencing some potential threat to self to focus on negative information. The key consideration in the present case is that the older adults were not just feeling positive, but were feeling positive about themselves within a specific domain of functioning, which may have provided the ego strength to consider potentially negative information about themselves.

Seeming inconsistencies with SST were also reflected in reported goal priorities. One might expect older adults to report relatively high emotion-focused goals, regardless of condition, as a chronic emotional goal would make them either want to feel better emotionally when feeling negative, or maintain their current positive emotions when feeling positive. However, in both of our studies, we found no condition or age group differences in emotion-focused goals, suggesting a broader, non-age-specific prioritization that contrasts with SST’s supposition that older adults favor emotion goals while young adults are concerned with information gain. In the present study, we also found that information goal priorities were higher for those in the positive conditions, regardless of age. This suggests that information-focused goals may be more flexible, and likely enhanced in situations where individuals have relevant positive self-perceptions. It is also notable that young adults (as well as older adults) reported lower information-seeking goals in conditions where they were in negative versus positive states, as SST might suggest that feeling negative would be less consequential for young adults’ goal priorities. We note, however, that these goal priorities were not reflected in young adults’ actual behavior to the same degree as older adults’. Taken together, our findings that positive states were actually associated with higher information-seeking goals, as well as more openness to exposure to negative information for older adults appear inconsistent with SST-hypothesized relationships between age, goals, and attention to valenced information. Furthermore, we suggest that willingness to consider negative information may be more tied to high information-seeking goals than low emotion-regulation goals.

Findings of the present and earlier study are also inconsistent with previous work examining mood-as-resource with young adults (e.g., Aspinwall & Burnhart, 1996; Das, Vonkeman, & Hartmann, 2012; Gasper & Zawadzki, 2013; Gervey et al., 2005; Raghunathan & Trope, 2002; Trope & Neter, 1994; Trope & Pomerantz, 1998). Potential explanations for our lack of effects in young adults relate to the nature of the information to-be gathered, the age-relevance of the manipulated construct, and the degree to which we successfully manipulated the construct across age groups. It is clear that the article headlines from which participants selected were more relevant to older than young adults and likely had relatively more informative value to older adults. As demonstrated in Study 2, positive self-perceptions may only be a resource in situations where the information is viewed as highly informative, and young adults may not have perceived much value in reading about health issues pertaining to older adults. Second, manipulating the perception of one’s engagement in healthy behaviors may have differentially affected goal priorities and subsequent interests, attention, and behavior for young and older adults. It is notable that studies successfully demonstrating mood-as-resource effects in younger adults selected domains of functioning that either specifically related to the participants’ health habits (e.g., caffeine consumption: Raghunathan & Trope, 2002; smoking: Das et al., 2012; personal health risks: Aspinwall & Burnhart, 1996) or were more salient to their age group (e.g., assets or liabilities for attaining personal life goals or specific careers: Trope & Pomerantz, 1998; logic abilities for undergraduate students: Gasper & Zawadzki, 2013; preconscious relations abilities: Gervey et al., 2005; social sensitivity: Trope & Neter, 1994). Thus, the salience of the domain may moderate the impact of affect-based resources through activation of specific emotional responses and associated goals. We suggest that perceptions of health and cognitive ability may be stronger components of self-concept for older adults than young adults, making our manipulations more far-reaching. Lastly, despite the comparable health checklist scores and SF-8-derived scores across age groups in Study 1, our first study did not include an explicit manipulation check of health behavior perceptions, so we are unsure whether young adults’ health behavior perceptions were manipulated to the same extent as older adults’. It is possible that completing the negative health checklist, for example, may have disproportionately lowered older adults’ health behavior perceptions as well as their self-efficacy in this domain. Furthermore, preexisting health behavior perceptions may have been more fragile in older adults, potentially making them more susceptible to the experimental manipulation. It is also
likely that health literacy might influence young and older adults’ self-efficacy as well as interest in different types of health-related information.

The obtained pattern of results also suggests that older adults’ levels of self-efficacy in the domain of health may have altered the degree to which they viewed the articles as resources from which they might learn valuable applicable information. Past research suggests that positive mood is most likely to be an effective resource for dealing with negative information when it is relevant and helpful to the individual (e.g., Raghunathan & Trope, 2002). This is consistent with our findings from Study 2, as older adults used mood as a resource only when presented with high-informative headlines. In line with the idea that domain-specific self-efficacy plays an important role in older adults’ willingness to consider negative information, the lines-of-defense model for managing health threats (Heckhausen et al., 2013) suggests that perceptions of the attainability of health may influence goal engagement and disengagement. In the present study, we manipulated perceptions of health, and also may have increased the urgency of this goal by making it more salient. That is, having older adults fill out the health checklists may have imposed a developmental deadline, by having them assess themselves as either successful or unsuccessful agers in the domain of health. As suggested by this model, older adults who felt positive about their health (i.e., experienced success) may have been motivated to invest time, effort, and resources into the maintenance of their health, whereas those who felt negative about their health (i.e., experienced failure) may have deactivated their motivational commitment to health in an effort to protect their resources for another goal that seemed more attainable, such as mood repair or self-esteem bolstering.

In conclusion, our findings suggest that self-perceptions in the health domain, along with information-focused goal priorities, influence the degree to which older adults show interest in learning more about health information that is important and informative, but difficult to handle. It was previously thought that general positive affect may serve as a resource, but we suggest that older adults may be more willing to consider negative but helpful information in situations where their self-perception in that particular domain is positive. Importantly, we demonstrate that self-perceptions are malleable, and present an additional way in which older adults’ positivity biases may be moderated by situational factors. Results of this study have practical implications for physicians and health care professionals who aim to effectively present a wide variety of information to older adults. Especially in situations where a message cannot be framed positively so as to enhance older adults’ response (e.g., Notthoff & Carstensen, 2014; Shamaskin et al., 2010), we would advise practitioners to consider the patients’ view of their health before starting a difficult discussion about their conditions. Stating the positives in the situation, or even acknowledging the patient’s positive health behaviors may create an environment in which the patient is more receptive to advice or willing to consider negative information.

References


