

Craving Activity and Losing Objectivity : Effects of General Action Concepts on Approach to Decision-Consistent Information

William Hart and Dolores Albarracín

Social Psychological and Personality Science 2012 3: 55 originally published online 19 May 2011

DOI: 10.1177/1948550611408620

The online version of this article can be found at:
<http://spp.sagepub.com/content/3/1/55>

Published by:



<http://www.sagepublications.com>

On behalf of:

[Society for Personality and Social Psychology](#)



[Association for Research in Personality](#)

ASSOCIATION FOR
RESEARCH IN PERSONALITY

[European Association of Social Psychology](#)



European Association
of Social Psychology

[Society of Experimental and Social Psychology](#)



Additional services and information for *Social Psychological and Personality Science* can be found at:

Email Alerts: <http://spp.sagepub.com/cgi/alerts>

Subscriptions: <http://spp.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>


Citations: <http://spp.sagepub.com/content/3/1/55.refs.html>

>> [Version of Record](#) - Dec 2, 2011

[Proof](#) - May 19, 2011

[What is This?](#)

Craving Activity and Losing Objectivity: Effects of General Action Concepts on Approach to Decision-Consistent Information

Social Psychological and
Personality Science
3(1) 55-62
© The Author(s) 2012
Reprints and permission:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/1948550611408620
http://spps.sagepub.com


William Hart¹ and Dolores Albarracín²

Abstract

In light of U.S. society's ever increasing need for activity, the authors used three experiments to examine how *general action concepts*, activated by subtle priming methods, influence choices to approach information that confirms a recent decision. Findings from Experiments 1 to 3 revealed that viewing action (vs. control) words prior to information selection increased selective approach to supporting information, but viewing inaction (vs. control) words reduced this bias. Experiment 3 also showed that the effect of the action words on this confirmation bias was smaller when participants were allowed to self-affirm by writing about an important personal value. In addition, the experiments found that viewing the action words caused the selection of more *total* information than viewing the inaction words. The authors conclude that the growing need for activity in the United States may contribute to a loss of objectivity in the way citizens gather information.

Keywords

selective exposure, action/inaction, social cognition, attitude, goal

Recent trends suggest that the U.S. society craves activity. Over the last few decades, the average U.S. citizen watches more hours of television (The Nielsen Company, 2009), works longer hours on the job (National Sleep Foundation, 2005), eats more food (Farah & Buzby, 2005), engages in more leisure-time physical activity (e.g., golf; Center for Disease Control and Prevention, 2010), and performs better on cognitive tests (Flynn, 1987; also see Grissmer, Kirby, Berends, & Williamson, 1994), all while enjoying less sleep (National Sleep Foundation, 2005). Consider also that nearly 75% of North Americans consume caffeine habitually (International Food Information Council, 2010), 70% of our soft drinks are caffeinated (Griffiths & Vernotica, 2000), and the “energy-drink” industry (e.g., “Red Bull”) made over five billion dollars in profits in 2006 (Packaged Facts, 2007) and is currently one of the fastest-growing industries—500 new energy drinks were released nationally in 2006, 200 of which were released in the United States (Johnson, 2006). Citizens' ever growing need for activity comes at a time when technological advances and a growing media industry allow people access to a wide array of information conveying diverse opinions on important topics such as business, health, politics, and religion. In light of these two trends, the current research set out to explore how situational manipulations that are known to influence the accessibility of *general action concepts* affect decisions to approach information supporting or opposing prior decisions.

More specifically, the current research tested the effects of general action concepts on the preference for supportive information following a decision, a bias that is present in most conditions (Hart et al., 2009). Past research has shown that general action concepts can be activated to influence activity levels on a variety of tasks. For example, exposure to words denoting action (vs. words denoting inaction; e.g., *go* vs. *stop*) gives way to general action (vs. inaction) concepts that in turn produce higher or lower degrees of cognitive and motor pursuits (Gendolla & Silvestrini, 2010). Specifically, participants shown general action (vs. inaction) words subsequently ate more available food, correctly solved more difficult verbal problems, showed better recall of a text, and preferred active tasks to rest (Albarracín et al., 2008). Although the effects of action concepts have been demonstrated in a variety of important domains (Albarracín, Wang, & Leeper, 2009; Laran, 2010; Noguchi, Handley, & Albarracín, in press), their influence on exposure decisions awaits empirical test.

¹ Department of Psychology, University of Alabama, Tuscaloosa, AL, USA

² Department of Psychology, University of Illinois, Urbana–Champaign, IL, USA

Corresponding Author:

William Hart, University of Alabama, Tuscaloosa, Box 870348, AL 35487, USA
Email: wphart@ua.edu or dalbarra@illinois.edu

In the current article, participants indicated a decision on an issue (e.g., whether colleges should allow defamatory speeches on campus)—knowing that they would later select and read new information on the issue—and subsequently were primed with either action, inaction or, in some cases, control words. Following priming, participants were given an opportunity to select new information that clearly supported or contradicted their earlier decision. We anticipated that the presentation of action words prior to information selection would result in selecting more information to read and making the selection in a more biased fashion. A critical reason underlying approach to decision-consistent information is that confronting contradictory information elicits evaluative uncertainty and unpleasant arousal that can be avoided by decision-congenial exposure (Festinger, 1957; Frey, 1986). Moreover, activation of general action concepts may strengthen tendencies to avoid uncertainty about the desirability of a past decision as a way of enhancing decisive, effective ongoing action (e.g., Boninger, Krosnick, & Berent, 1995; Fazio & Zanna, 1981; Sivacek & Crano, 1982). As such, it seems reasonable that the activation of general action (vs. inaction) concepts should predispose individuals to select information that supports past decisions. As examples, smokers prefer information that *denies* a link between lung cancer and smoking over information that *confirms* this link (Brock, 1965; Brock & Balloun, 1967), voters prefer information that *praises* their preferred candidate over information that *criticizes* this candidate (Rhine, 1967), and parents prefer information that *supports* their parenting philosophy over information that *challenges* this philosophy (Adams, 1961). These biases in selective exposure may be amplified when people's level of activity is higher due to accessible action concepts.

The hypothesized effects of activating action and inaction concepts on selective exposure are consistent with and build upon prior research in important ways. An action-based model of cognitive dissonance has purported that people seek cognitive consistency by devaluing unselected alternatives to enhance unconflicted action (Harmon-Jones & Harmon-Jones, 2002; for a review, see Harmon-Jones, Amodio, & Harmon-Jones, 2009). In this past research, participants who thought about implementing a recent decision or a personal goal preferred a selected (vs. nonselected) alternative ("spreading of alternatives") to a greater extent than participants who thought about a typical day in their lives (Harmon-Jones, Harmon-Jones, Fearn, Sigelman, & Johnson, 2008; see also Harmon-Jones & Harmon-Jones, 2002). Further, participants with higher levels of trait behavioral activation sensitivity (BAS), which entails high arousal positive affect such as elation, show greater consistency between their attitudes and a recent behavior than participants with lower levels of this trait (Harmon-Jones, Schmeichel, Inzlicht, & Harmon-Jones, in press). In this context, our focus on selective exposure is novel because this prior research has focused exclusively on *evaluative change* rather than actual, *overt* attempts to add new, supportive cognitions (for a comparison between evaluation and selective exposure, see Frey, 1986; Jonas, Greenberg,

& Frey, 2003). In addition, prior work has not investigated the influence of *general* action/inaction priming but rather has concentrated on *specific* action plans or the high arousal positive affect measured by BAS (Clark & Watson, 1991; Gray, 1994). Hence, our research on generalized action versus inaction concepts, which are orthogonal to positive and negative affect (Albarracín & Hart, in press) and known to affect generalized activity (Albarracín et al., 2008), come to complement and extend prior research.

In three experiments, we explored the effects of general action and inaction primes on selective exposure and the overall amount of information selected to read. In each experiment, participants reported a tentative decision on an issue, completed a priming task with action, inaction or, in Experiment 1, control words, and then selected articles that either supported or contradicted their prior decision. We hypothesized that the activation of general action (vs. inaction) concepts prior to information selection would increase selective approach to consistent information. In addition to augmenting selective exposure, general action concepts may influence the amount of information sought after a decision. For example, action concepts may promote willingness to think about new information to a greater extent than inaction concepts (Albarracín et al., 2008). Consistent with this idea, before making a decision, action (vs. inaction) concepts cause the analysis of larger amounts of information than inaction concepts (Laran, 2010).¹

Given that effects of action primes on selective exposure are presumed to be guided by attempts to reduce evaluative uncertainty (and hence to strengthen decisions), Experiment 2 tested implications of this proposal directly by measuring decision strength (indexed as certainty in and commitment to the decision) following the decision. We assumed that action primes would promote feelings of decision strength that would in turn amplify selective exposure to a greater extent than inaction primes (Brannon, Tagler, & Eagly, 2007; Fischer, Greitemeyer, & Frey, 2008; Jonas, Schulz-Hardt, Frey, & Thelen, 2001; Jonas, Traut-Mattausch, Frey, & Greenberg, 2008). Furthermore, given that self-affirmation is known to promote an even-handed evaluation of consistent and inconsistent information (Sherman & Cohen, 2002; Sherman, Nelson, & Steele, 2000), Experiment 3 examined whether self-affirmation would reduce or completely remove effects of the primes on selective exposure.²

Experiment 1

As an initial step, we investigated the effects of action and inaction primes on selective exposure. Participants indicated an initial decision on a business case, were primed with action, inaction, or control words, and then had an opportunity to select information from an array of supportive and unsupportive thesis statements. We predicted that participants exposed to action (vs. control or inaction) words would show a greater preference for supportive information. We also expected that action primes would promote the selection of more information than inaction or control primes.

Method

Participants and design. Participants were 125 introductory-psychology students. The design had three conditions (action, control, and inaction primes).

Materials and procedure. Participants completed all the tasks as part of what was described as unrelated experiments. Participants were told that the first study dealt with decision making. Participants were asked to imagine that they were a store owner faced with the decision of whether to extend the contract of their current manager (Miller) who, according to a vignette, had mixed success with the company (Fischer, Jonas, Frey, & Schulz-Hardt, 2005; Frey, 1986). After reading this information describing positive and negative aspects of Miller, participants were asked to provide a tentative decision about whether they wanted to extend his contract by clicking on one of the two boxes labeled “extend his contract” or “end his contract.”³ As in prior research (Fischer et al., 2005), participants indicated their choice thinking they would have the opportunity to read more information about the case later in the session and, if desired, revise their choice.

After indicating a decision, participants were told that they would take a brief break from the business-decision task to complete a verbal measure being pilot tested for use in future studies. On this task, participants were presented 12 words with missing letters and were asked to fill in the missing letters to make an English word. In the inaction-prime condition, participants received eight incomplete inaction-related words that must be completed as *still*, *pause*, *interrupt*, *calm*, *freeze*, *unable*, *stop*, and *inactive*. In the action-prime condition, participants received eight incomplete action-related words that must be completed as *motivation*, *doing*, *behavior*, *engage*, *action*, *make*, *go*, and *active*. In the control condition, participants received eight incomplete control words that must be completed as *ring*, *air*, *screen*, *space*, *green*, *building*, *tooth*, and *ranch* in addition to four control words present in all conditions (*that*, *cup*, *wall*, *door*). Previous research has shown that the presentation of action and inaction words has no influence on mood (Albarracin et al., 2008; Laran, 2010). Yet, because selective exposure depends on mood (Jonas, Graupmann, & Frey, 2006), we made sure that mood was unrelated to the priming by having participants indicate their mood on a 1 (*very negative*) to 10 (*very positive*) scale immediately after the prime task.⁴

Subsequently, participants were given an opportunity to select new information about the business-decision task. This additional information was presented as 12 thesis statements ostensibly authored by the manager’s coworkers. Each statement contained a conclusion as to whether to extend the contract and an argument in favor of that conclusion. The statements were presented sequentially on the computer screen and participants indicated whether they wanted to read the article by clicking on a box labeled either “yes” or “no.” Participants were led to believe that the computer would retrieve the requested articles after selection. We offered six statements to support extending the contract and six statements to support not

Table 1. Means and Standard Deviations for Information Search as a Function of Prime: Experiment 1

Prime	Information Type					
	Consistent		Inconsistent		Selective Exposure Bias	
	M	SD	M	SD	M	SD
Action	3.55	1.88	1.58	1.50	1.97*	2.93
Control	2.78	1.65	1.82	1.71	0.95*	1.53
Inaction	1.90	1.43	1.92	1.29	-0.03	1.83

The selective exposure bias column refers to the difference between the number of articles selected that were consistent and the number of articles selected that were inconsistent with a decision. Means in the selective exposure bias column marked with an asterisk differ from 0 at $p < .05$.

extending the contract; the presentation of these statements was randomly determined by the computer program. After selection, participants were asked to make their final decision on the case, were probed for awareness of the experiment’s purpose, and were debriefed.⁵

Results and Discussion

Awareness check. No participant in this or any subsequent experiment indicated any suspicions about the priming procedure or perceived a connection between the primes and the information-selection task. Hence, demand will be discussed no further.

Information search. We conducted a 2 (Information type: consistent vs. inconsistent) \times 3 (Prime: action, inaction, control) analysis of variance (ANOVA) with repeated measures on the first factor (see Table 1 for cell means). The analysis revealed a significant main effect of information type, $F(2, 117) = 32.81$, $p = .001$, showing that more consistent information ($M = 2.74$, $SD = 1.78$) was selected than inconsistent information ($M = 1.78$, $SD = 1.50$). As anticipated, however, this main effect was qualified by an interaction with priming, $F(2, 117) = 11.71$, $p = .001$. Although participants in the action-prime, $t(117) = 6.76$, $p = .001$, and control-prime, $t(117) = 3.25$, $p = .002$, conditions showed a significant preference for consistent over inconsistent information, participants in the inaction-prime condition did not show this preference, $t(117) < 1$. Consistent with our expectations, post hoc contrasts (using the least significant difference [LSD] method) between the three priming conditions revealed that the selective exposure bias was accentuated in the action-prime (vs. control-prime) condition ($p < .05$) and was reduced in the inaction-prime (vs. control-prime) condition ($p < .05$). Finally, we examined the effect of the prime on how much (total) information was selected. As predicted, more information was selected in the action-prime ($M = 5.13$, $SD = 2.65$) relative to the inaction-prime condition ($M = 3.82$, $SD = 2.01$), $t(117) = 2.25$, $p = .03$. Also as expected, the behavior of the control participants fell in between the action and inaction conditions ($M = 4.60$, $SD = 2.99$), but did not significantly differ from either prime condition, $|t_s| < 1.4$.⁶

Discussion. Experiment 1 revealed that action (inaction) priming enhanced (reduced) selective approach to information that confirms prior decisions relative to control priming. These findings thus support the possibility that action concepts promote attempts to seek evaluative certainty through selective exposure. Interestingly, inaction concepts led to selections that could allow for evaluative uncertainty, perhaps as a way to support a delay in action (i.e., an inaction) until a firm decision is reached. Experiment 2 attempted to replicate and build upon the results of Experiment 1 by including a measure of decision strength. As decision strength should follow from attempts to establish evaluative certainty, we anticipated greater perceptions of decision strength in the action-prime condition, which should mediate the effects of the primes on approach to confirming information.

Experiment 2

Method

Participants and design. Participants were 72 introductory-psychology students. The design included two conditions (action and inaction prime).

Materials and procedure. Procedures were similar to those used in Experiment 1 with two changes. First, we used a real-world issue instead of a fictitious hiring choice. Participants were asked to consider their view on whether hate speech should be allowed or banned on college campuses. A cover story indicated that the issue is debated because it represents a clash between freedom of speech and the protection of minority rights. After participants read the cover story, they indicated their decision.⁷ As before, participants indicated their choice knowing they would have the opportunity to read additional information on the issue. For the second change, we introduced questions concerning the strength of their current decision on hate speech immediately after the prime task. After participants completed the prime task, they indicated how strong their view on hate speech was by answering, on a scale from 1 (*not at all*) to 9 (*extremely*), “I have a strong view toward the issue of censoring hate speech” and “I feel committed toward my view on censoring hate speech.” These items are similar to past items that have been used in selective exposure research to index decision strength (Jonas & Frey, 2003; Jonas et al., 2001, 2003; Fischer et al., 2008). Because they were highly correlated ($r = .90, p < .001$), they were averaged to create a decision strength index. Next, participants selected information from 12 thesis statements (6 were pro-ban and 6 were anti-ban) that were presented sequentially as in Experiment 1. After the selection, participants indicated their final view,⁸ were probed for demand, and were debriefed.

Results and Discussion

Information search. We conducted a 2 (Information type: consistent vs. inconsistent) \times 2 (Prime: action, inaction) ANOVA with repeated measures on the first factor (see Table 2 for cell means). The analysis revealed a significant main effect of

Table 2. Means and Standard Deviations for Information Search as a Function of Prime: Experiment 2

Prime	Information Type				Selective Exposure Bias	
	Consistent		Inconsistent		M	SD
	M	SD	M	SD		
Action	3.68	1.74	1.68	1.52	2.00*	2.21
Inaction	2.50	1.37	1.88	1.52	0.62*	1.77

The selective exposure bias refers to the difference between the number of articles selected that were consistent and the number of articles selected that were inconsistent with a choice. Means in the selective exposure bias column marked with an asterisk differ from 0 at $p < .05$.

information type, $F(1, 68) = 30.15, p = .001$, showing that more consistent information ($M = 2.97, SD = 1.62$) was selected than inconsistent information ($M = 1.80, SD = 1.51$). This main effect was qualified by the interaction with priming, $F(1, 68) = 8.38, p = .005$. As predicted, the selective-exposure bias was greater in the action-prime than inaction-prime condition (compare $M = 2.00$ vs. $M = 0.62$). Although the selective-exposure bias was larger in the action-prime (vs. inaction-prime) condition, the selective exposure bias was nevertheless present in both the action-prime, $t(68) = 5.41, p < .001$, and the inaction-prime, $t(68) = 2.05, p = .04$, conditions. Next, we examined whether the action (vs. inaction) prime resulted in the selection of more information. As anticipated, and consistent with Experiment 1, the amount of information selected was (marginally) greater in the action-prime condition ($M = 5.36, SD = 2.41$) than in the inaction-prime condition ($M = 4.38, SD = 2.28$), $F(1, 68) = 2.94, p = .09$.⁹

Decision strength. We also analyzed whether decision strength differed across conditions using ANOVA. Suggestive of greater attempts to establish evaluative certainty, the analysis revealed a significant main effect of prime showing that decision strength was greater in the action-prime condition ($M = 6.79, SD = 2.11$) relative to the inaction-prime condition ($M = 5.56, SD = 1.99$), $F(1, 68) = 6.08, p = .016$.

Mediation analysis. Given that strong decisions have been shown to promote selective approach to confirming evidence, we tested the indirect effect of the primes on selective exposure through decision strength. For this test, we estimated the standard deviation of the indirect effect of prime, via decision strength, on the “selective exposure bias” represented with a difference score calculated by subtracting the number of consistent from inconsistent selections for 5000 bootstrapped samples (Preacher & Hayes, 2004). Consistent with our mediation hypothesis, the indirect effect was estimated to lie between 0.03 and 0.48 with 95% confidence ($b = 0.21, SE = 0.11$). Because zero is not in this interval, these data suggest that effect of the prime on selective exposure was mediated by decision strength.

Discussion. Action (vs. inaction) primes accentuated selective approach to decision consistent information by increasing

Table 3. Means and Standard Deviations for Information Search as a Function of Experimental Condition: Experiment 3

Condition	Information Type					
	Consistent		Inconsistent		Selective Exposure Bias	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Action/no self-affirmation	4.19	2.07	1.56	1.93	2.63*	2.68
Inaction/no self-affirmation	2.37	1.50	1.95	1.99	0.42	1.89
Action/self-affirmation	2.78	1.56	2.78	1.40	0.00	2.22
Inaction/self-affirmation	2.59	1.35	2.07	1.58	0.52	1.60

The selective exposure bias refers to the difference between the number of articles selected that were consistent and the number of articles selected that were inconsistent with a choice. Means in the selective exposure bias column marked with an asterisk differ from 0 at $p < .05$.

decision strength. Such findings are consistent with our idea that action priming facilitates attempts to establish evaluative certainty (or diminish uncertainty). Experiment 3 sought to establish a boundary condition for the effect of the primes on selective exposure. More specifically, given that self-affirmation promotes a fair evaluation of new information, we expected it to reduce the biasing effects of action primes on selective exposure.

Experiment 3

Method

Participants and design. Participants were 87 introductory-psychology students. The design included four experimental conditions created by crossing priming (action or inaction prime) with a manipulation of self-affirmation (self-affirmation or no self-affirmation/control).

Materials and procedure. As in the prior experiments, participants were told that they would complete unrelated experiments. Under this pretense, they completed the Miller decision case (see Experiment 1).¹⁰ After participants indicated a decision, they either engaged in a self-affirmation or control task. Following procedures used in previous research (Cohen, Aronson, & Steele, 2000; Fein & Spencer, 1997), participants in the self-affirmation condition were shown six values (business/economics, science/pursuit of learning, art/music/theatre, social life/relationships, religion/morality, and government/politics) and were asked to select the value they most cherish. A separate screen asked them to discuss why they cherish that value. Participants in the control condition viewed the same six values but were asked to select the value they least cherished. A separate screen asked them to discuss why others might cherish that value. Subsequently, participants completed a priming task (see Experiment 2) and then selected information (see Experiment 1). Finally, participants indicated their final decision,¹¹ were probed for demand, and were debriefed.

Results and Discussion¹²

Information search. We conducted a 2 (Information type: consistent vs. inconsistent) \times 2 (Prime: action, inaction) \times 2 (Self-affirmation or no self-affirmation) ANOVA with repeated measures on the first factor (see Table 3 for cell means).

The analysis revealed a main effect of information type, $F(1, 78) = 14.73, p = .001$, showing that more consistent ($M = 2.89, SD = 1.69$) than inconsistent information ($M = 2.10, SD = 1.73$) was selected. The ANOVA also revealed a reliable interaction between information type and self-affirmation, $F(1, 78) = 7.42, p = .008$, and a marginal interaction between information type and prime, $F(1, 78) = 3.30, p = .07$. Importantly, however, these two-way interactions were qualified by the predicted three-way interaction, $F(1, 78) = 8.60, p = .004$. We decomposed the three-way interaction by analyzing the interaction between prime and information type within the no self-affirmation and self-affirmation conditions. As anticipated, within the no self-affirmation condition, the analysis revealed the predicted interaction between the prime and information type, $F(1, 78) = 11.36, p = .001$. As in Experiments 1 and 2, a stronger preference for consistent (over inconsistent) information was present in the action-prime than in the inaction-prime condition (see Table 3). Within the self-affirmation condition, as predicted, there was no reliable interaction between information type and priming, $F < 1$. We also examined effects of self-affirmation and the prime on the total amount of information selected. As anticipated, the analysis revealed only a main effect of the prime such that more information was selected in the action ($M = 5.65, SD = 2.45$) than in the inaction condition ($M = 4.52, SD = 2.65$), $F(1, 78) = 3.95, p = .05$.¹³

Discussion. Experiment 3 supplied additional evidence that general action (vs. inaction) primes increase approach to decision-consistent information. More importantly, however, Experiment 3 established an important boundary condition for the effect. When self-affirmation created a fair, nondefensive processing of new information, the effects of the prime on selective exposure vanished.

General Discussion

The current research was conducted to explore implications of priming generalized action and inaction concepts for selective exposure to information. Experiment 1 demonstrated that the preference for consistent over inconsistent information was greater after action (vs. control) primes and lesser after inaction (vs. control) primes. Experiment 2 showed that action (vs. inaction) primes promoted stronger decisions and led to greater selective exposure. Moreover, Experiment 3 revealed that

when a self-affirmation task was placed between the decision and the priming manipulation, action (vs. inaction) primes had no discernable influence on selective exposure. Presumably, self-affirmation created an even-handed processing of post-decisional information that interfered with the implications of the prime on selective approach to consistent information. All in all, our research is consistent with prior theorizing suggesting that people seek evaluative certainty (consistency among cognitions) to fulfill a requirement for efficient action (Albarracín & Handley, in press; Beckmann & Irle, 1985; Harmon-Jones & Harmon-Jones, 2002).

The current research contributes to understanding how general action and inaction concepts influence behavior. Interestingly, prior research has shown that the subtle activation of action (vs. inaction) concepts promotes more output on a variety of cognitive (e.g., enhanced performance on academic tasks) and behavioral tasks (e.g., eating; Albarracín et al., 2008). However, research on *how* these concepts influence behavior output is in its early stages. Some research suggests that action (vs. inaction) primes automatically mobilize effort to increase activity on a variety of tasks (Gendolla & Silvestrini, 2010). Yet, it is also possible that action primes influence activity by enhancing certainty in implementing a behavior. For example, action concepts may promote a stronger decision to perform a behavior that in turn supports a commitment to vigorously engage in a behavior. As initial support for this mechanism, the current research showed that action concepts promoted stronger initial decisions and greater approach to consistent information than inaction primes.

Over the last few decades, verb phrases that denote general action such as “get active,” “get moving,” “do something,” and “make something” have been used more frequently in books published in the United States (Google labs, 2010; see Michel et al., 2010). As action cues have become more available, technological advancements in media dissemination have also given citizens greater access to news and facts. Unfortunately, our research shows that priming general action concepts can directly contribute to more defensiveness and the loss of objectivity in the way citizens gather information.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The research was facilitated by grants from the National Institutes of Health (K02-MH01861; R01-NR08325)

Notes

1. The effects of action concepts on cognitive effort may extend beyond the amount of information selected. For example, a willingness to expend effort may be reflected in attention to available abstracts offered for selection. Nevertheless, we limited our focus to information selection (vs. attention). Future research may

explore implications of the action concepts on measures of attention.

2. Action (vs. inaction) concepts should increase default activity, including both defensive activity such as decision-congenial information selection and nondefensive activity such as the selection of a greater amount of information. A manipulation such as self-affirmation that reduces defensiveness, however, should be expected to moderate only the defensive effects of the action (vs. inaction) concepts without influencing the amount of information selected.
3. Of the participants who remained in the analysis, 69 (55%) voted against the extension.
4. Consistent with past research, prime had no influence on self-reported mood in this study or any subsequent study, $t < 1$.
5. To maintain experimental validity, data from five participants were discarded because they revised their preliminary decision. When participants revise their initial decision after information selection, it creates ambiguity on what their decision might have been when they were selecting information (was it the revised decision, the initial decision, or some combination of both decisions?); given this ambiguity, it is impossible to accurately label articles as consistent or inconsistent (see also Jonas et al., 2003, 2006). Eliminating data from participants based on this criterion did not alter the pattern of means in this or any of the reported studies.
6. Individual analyses for the consistent and inconsistent information showed that the prime influenced the selection of consistent information, $F(2, 117) = 9.83, p = .001$, but not the selection of inconsistent information, $F < 1$. More consistent information was selected in the action-prime (vs. control-prime) condition, $t(117) = 2.08, p < .05$, and less consistent information was selected in the inaction-prime (vs. control-prime) condition, $t(117) = -2.37, p < .05$.
7. Of the participants who remained in the analysis, 46 (66%) voted in favor of a ban.
8. Data from two participants were discarded because they changed their decision.
9. We performed separate analyses on the consistent and inconsistent information and found an effect of the prime on the selection of consistent information, $F(1, 68) = 10.00, p = .001$, but not the selection of inconsistent information (see Table 2 for means).
10. Of the participants who remained in the analysis, 50 (61%) voted against the extension.
11. Data from three participants were discarded because they changed their decision.
12. Data from two participants were discarded prior to analysis on grounds they failed to follow priming instructions. Eliminating these data did not alter the pattern of means.
13. We ran separate 2×2 ANOVAs for consistent and inconsistent information. For consistent information, the analysis revealed a significant effect of prime, $F(1, 78) = 7.80, p = .01$, a marginal effect of self-affirmation, $F(1, 78) = 2.74, p = .11$, and a significant interaction between prime and self-affirmation, $F(1, 78) = 5.11, p = .03$. Whereas priming influenced the amount of consonant information selected in the no self-affirmation condition, $t(78) = 3.43, p = .01$, it failed to have influence in the self-affirmation condition, $t < 1$. The ANOVA for inconsistent information revealed no significant main effects of the prime or self-affirmation and no interaction.

References

- Adams, J. S. (1961). Reduction of cognitive dissonance by seeking consonant information. *Journal of Abnormal and Social Psychology*, *62*, 74-78.
- Albarracín, D., & Handley, I. M. (in press). The time for doing is not the time for change: Effects of general action and inaction goals on attitude accessibility and attitude change. *Journal of Personality and Social Psychology*.
- Albarracín, D., Handley, I. M., Noguchi, K., McCulloch, K., Li, H., Leeper, J., . . . Hart, W. P. (2008). Increasing and decreasing motor and cognitive output: A model of general action and inaction goals. *Journal of Personality and Social Psychology*, *95*, 510-523.
- Albarracín, D., & Hart, W. (in press). Positive mood + action = Negative mood + inaction: Effects of general action and inaction concepts on decisions and performance as a function of affect. *Emotion*.
- Albarracín, D., Wang, W., & Leeper, J. (2009). Immediate increase in food intake following exercise messages. *Obesity*, *17*, 1451-1452.
- Beckmann, J., & Irlé, M. (1985). Dissonance and action control. In J. Kuhl & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp. 129-150). Berlin: Springer-Verlag.
- Boninger, D. S., Krosnick, J. A., & Berent, M. K. (1995). The origins of attitude importance: Self-interest, social identification, and value-relevance. *Journal of Personality and Social Psychology*, *68*, 61-80.
- Brannon, L. A., Tagler, M. J., & Eagly, A. H. (2007). The moderating role of attitude strength in selective exposure to information. *Journal of Experimental Social Psychology*, *43*, 611-617.
- Brock, T. C. (1965). Commitment to exposure as a determinant of information receptivity. *Journal of Personality and Social Psychology*, *2*, 10-19.
- Brock, T. C., & Balloun, J. L. (1967). Behavioral receptivity to dissonant information. *Journal of Personality and Social Psychology*, *6*, 413-428.
- Center for Disease Control and Prevention (2010). *1988–2008 No leisure-time physical activity trend chart*. Retrieved from http://www.cdc.gov/nccdphp/dnpa/physical/stats/leisure_time.htm
- Clark, L. A., & Watson, D. (1991). Affective dispositions and their relation to psychological and physical health. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook of social and clinical psychology* (pp. 221-245). New York, NY: Pergamon.
- Cohen, G. L., Aronson, J., & Steele, C. M. (2000). When beliefs yield to evidence: Reducing biased evaluation by affirming the self. *Personality and Social Psychology Bulletin*, *26*, 1151-1164.
- Farah, H. & Buzby, J. (2005). U.S. Food Consumption Up 16 Percent Since 1970. Retrieved from www.ers.usda.gov/amberwaves/november05/findings/usfoodconsumption.htm
- Fazio, R. H., & Zanna, M. P. (1981). Direct experience and attitude-behavior consistency. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 14, pp. 161-202). New York, NY: Academic Press.
- Fein, S., & Spencer, S. J. (1997). Prejudice as self-image maintenance: Affirming the self through derogating others. *Journal of Personality and Social Psychology*, *73*, 31-44.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Fischer, P., Greitemeyer, T., & Frey, D. (2008). Self-regulation and selective exposure: The impact of depleted self-regulation resources on confirmatory information processing. *Journal of Personality and Social Psychology*, *94*, 382-395.
- Fischer, P., Jonas, E., Frey, D., & Schulz-Hardt, S. (2005). Selective exposure to information: The impact of information limits. *European Journal of Social Psychology*, *35*, 469-492.
- Flynn, J. R. (1987). Massive IQ gains in 14 nations: What IQ tests really measure. *Psychological Bulletin*, *101*, 171-191.
- Frey, D. (1986). Recent research on selective exposure to information. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 41-80). New York, NY: Academic Press.
- Gendolla, G. H. E., & Silvestrini, N. (2010). The implicit "Go": Masked action cues directly mobilize mental effort. *Psychological Science*, *21*, 1389-1393.
- Google labs. (2010). *Books Ngram viewer*. Retrieved from <http://ngrams.googlelabs.com/>
- Gray, J. A. (1994). Personality dimensions and emotion systems. In P. Ekman & R. J. Davidson (Eds.), *The nature of emotion: Fundamental questions* (pp. 329-331). New York, NY: Oxford University Press.
- Griffiths, R., & Vernotica, E. (2000). Is caffeine a flavoring agent in cola soft drinks? *Archives of Family Medicine*, *9*, 727-734.
- Grissmer, D. W., Kirby, S. N., Berends, M., & Williamson, S. (1994). *Student achievement and the changing American family*. Santa Monica, CA: RAND Corporation.
- Harmon-Jones, E., Amodio, D. M., & Harmon-Jones, C. (2009). Action-based model of dissonance: A review, integration, and expansion of conceptions of cognitive conflict. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 119-166). New York, NY: Academic Press.
- Harmon-Jones, E., & Harmon-Jones, C. (2002). Testing the action-based model of cognitive dissonance: The effect of action-orientation on post-decisional attitudes. *Personality and Social Psychology Bulletin*, *28*, 711-723.
- Harmon-Jones, E., Harmon-Jones, C., Fearn, M., Sigelman, J. D., & Johnson, P. (2008). Action orientation, relative left frontal cortical activation, and spreading of alternatives: A test of the action-based model of dissonance. *Journal of Personality and Social Psychology*, *94*, 1-15.
- Harmon-Jones, C., Schmeichel, B. J., Inzlicht, M., & Harmon-Jones, E. (in press). Trait approach motivation relates to dissonance reduction. *Social Psychological and Personality Science*.
- Hart, W., Albarracín, D., Eagly, A. H., Brechan, I., Lindberg, M. J., & Merrill, L. (2009). Feeling validated versus being correct: A meta-analysis of selective exposure to information. *Psychological Bulletin*, *135*, 555-588.
- International Food Information Council. (2010). *2010 Food and health survey*. Retrieved from http://www.foodinsight.org/Resources/Detail.aspx?topic=2010_Food_Health_Survey_Consumer_Attitudes_Toward_Food_Safety_Nutrition_Health
- Johnson, C. K. (2006, October 29). *Caffeine-stoked energy drinks worry docs*. Retrieved from <http://www.washingtonpost.com/wp-dyn/content/article/2006/10/29/AR2006102900290.html>
- Jonas, E., & Frey, D. (2003). Searching for information about financial decisions in Euro versus DM. *European Psychologist*, *8*, 92-96.

- Jonas, E., Graupmann, V., & Frey, D. (2006). The influence of mood on the search for supporting vs. conflicting information: Dissonance reduction as a means of mood regulation? *Personality and Social Psychology Bulletin*, *32*, 3-15.
- Jonas, E., Greenberg, J., & Frey, D. (2003). Connecting terror management and dissonance theory: Evidence that mortality salience increases the preference for supporting information after decisions. *Personality and Social Psychology Bulletin*, *29*, 1181-1189.
- Jonas, E., Schulz-Hardt, S., Frey, D., & Thelen, N. (2001). Confirmation bias in sequential information search after preliminary decisions: An expansion of dissonance theoretical research on selective exposure to information. *Journal of Personality and Social Psychology*, *80*, 557-571.
- Jonas, E., Traut-Mattausch, E., Frey, D., & Greenberg, J. (2008). The path or the goal? Decision vs. information focus in biased information seeking after preliminary decisions. *Journal of Experimental Social Psychology*, *44*, 1180-1186.
- Laran, J. (2010). The influence of information processing goal pursuit on post-decision affect and behavioral intentions. *Journal of Personality and Social Psychology*, *98*, 16-28.
- Michel, J. B., Shen, Y. K., Aiden, A. P., Veres, A., Gray, M. K., & The Google Books Team, Pickett, J. P., & Aiden, E. L. (2010). Quantitative analysis of culture using millions of digitized books. *Science*, *331*, 176-182.
- National Sleep Foundation. (2005). *Sleep in America poll*. Retrieved from http://www.sleepfoundation.org/sites/default/files/2005_summary_of_findings.pdf
- Noguchi, K., Handley, I. M., & Albarracin, D. (in press). When participating in politics resembles physical activity: General action patterns in international archives, US archives, and experiments. *Psychological Science*, *22*, 235-242.
- Packaged Facts. (2007). *Energy drinks in the US*. Rockville, MD.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments and Computers*, *36*, 717-731.
- Rhine, R. J. (1967). The 1964 presidential election and curves of information seeking and avoiding. *Journal of Personality and Social Psychology*, *5*, 416-423.
- Sherman, D. A. K., Nelson, L. D., & Steele, C. M. (2000). Do messages about health risks threaten the self? Increasing the acceptance of threatening health messages via self-affirmation. *Personality and Social Psychology Bulletin*, *26*, 1046-1058.
- Sherman, D. K., & Cohen, G. L. (2002). Accepting threatening information: Self-affirmation and the reduction of defensive biases. *Current Directions in Psychological Science*, *11*, 119-123.
- Sivacek, J., & Crano, W. D. (1982). Vested interest as a moderator of attitude-behavior consistency. *Journal of Personality and Social Psychology*, *43*, 210-221.
- The Nielsen Company. (2009). *Average TV viewing for 2008-09 TV season at all-time high*. Retrieved from http://blog.nielsen.com/nielsenwire/media_entertainment/average-tv-viewing-for-2008-09-tv-season-at-all-time-high/

Bios

William Hart received his PhD in Social Psychology from the University of Florida in 2009 and is currently an Assistant Professor at The University of Alabama.

Dolores Albarracin received her PhD in Social Psychology from The University of Illinois at Urbana-Champaign and is currently a Professor at that same University.