

Research Article

Looking for my self: Identity-driven attention allocation☆☆☆

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Received 31 December 2013; received in revised form 25 November 2014; accepted 7 January 2015

Available online 13 January 2015

Abstract

This research builds on the motivational aspects of identity salience, finding that social identities direct the allocation of attention in identity-syntonic ways. Drawing from identity-based motivation (Oyserman, 2009; Reed, et al., 2012) we suggest individuals use attention to enhance identity-fit; selectively focusing on cues and stimuli that are identity-consistent. In two studies we find that activating a social identity drives preferential attention toward identity-relevant stimuli. Using a novel paradigm, Study 1 demonstrates that individuals strategically focus attention on identity-consistent emotional stimuli, while also shifting attention away from identity-inconsistent emotional stimuli. Using a dot-probe paradigm, Study 2 extends these results to show that individuals allocate attention toward both emotional and non-emotional (semantic associates) stimuli that are identity-consistent, and away from those that are incompatible. Consistent with theories suggesting cognition and perception are constructed (James, 1890/1983) and that identities direct and influence meaning-making (Oyserman, 2009; Reed et al., 2012), we find that social identities drive attention allocation, with identity-consistent stimuli receiving greater attention; suggesting that an identity's sense-making begins with motivated attention toward perceiving an identity-consistent environment.

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Keywords: Social identity; attention; emotion

"Suffice it meanwhile that each of us literally chooses, by his ways of attending to things, what sort of a universe he shall appear to himself to inhabit." James (1890/1983)

Imagine a football team, headed to a game. Along the highway they pass a billboard for a soup kitchen, with a crying child imploring their help—will the players notice that ad? What if the child is holding a football? Attention is critical to subsequent information processing (Greenwald & Leavitt, 1984). We explore whether aspects of a person's self—her active social identity—will prompt attention allocation to support sense-making that goes with that self-structure (Oyserman, 2009). We thus propose an

identity-based motivational account of attention allocation (Oyserman, 2009); active social identities will direct consumers' attention toward stimuli that support those identities.

Building on identity-based motivation (Oyserman, 2009; Reed, Forehand, Puntoni, & Warlop, 2012), we suggest individuals use attention to enhance identity enactment; selectively focusing on cues and stimuli that are identity-syntonic. Activating a social identity should drive preferential attention toward identity-relevant stimuli, cues, and emotions, as the individual reinforces the active identity (Reed et al., 2012). We find social identities drive consumers' attention allocation processes, with identity-consistent stimuli receiving greater attention; suggesting that an identity's sense-making begins with motivated attention toward perceiving an identity-relevant environment.

Social Identities and Motivated Attention

Individuals possess multiple social identities, varying in salience and centrality, derived from membership in social

☆ Research Report

☆☆ The authors thank Shawn Zamechek for his fantastic programming work, and the Wharton Behavioral Laboratory for data collection assistance. Correspondence concerning this paper should be addressed to Nicole Verrochi Coleman, 382C Mervis Hall, University of Pittsburgh, Pittsburgh, PA 15260.

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groups (Kleine, Kleine, & Kernan, 1993; Reed, 2004; Tajfel, 1978). A broad range of associations, including attitudes, values, behaviors, and brands that assist in enacting a specific identity become connected with it, subsumed into its knowledge structure, providing guidance for expressing the identity (Kleine et al., 1993). Identities potentiate a readiness to make sense of the world and behave in an identity-congruent manner (Oyserman, 2009). When a specific identity is active, an individual views the world through that knowledge structure—avoiding identity-inconsistent activities and objects (Berger & Heath, 2007), and approaching those that are consistent (Reed, 2004). Individuals rely on social identities to provide self-regulation that calibrates cognition, attitudes, values, and behaviors according to active identity standards (Mercurio & Forehand, 2011; Oyserman, 2009; Reed et al., 2012).

Identities thus contain constellations of associations, including objects and concepts imbued with corresponding meanings and evaluations (Reed et al., 2012). The salience of an identity potentiates a readiness to enact identity-relevant cognitive procedures, attitudes, and behaviors (Oyserman, 2009). Recent work has also suggested that identities contain associations to specific discrete emotions, leading consumers to seek out and manage emotional experiences to maintain identity-consistency (Coleman & Williams, 2013). Because discrete emotions imply unique action tendencies (Frijda, 1986) and identities also potentiate actions (Oyserman, 2009), certain emotions may be relevant to the goals and objectives of specific social identities, becoming linked to identity-relevant action readiness, even absent an emotion experience. Thus, the cognitive architecture of an identity contains both emotional and non-emotional associations, which create a mindset to guide identity enactment (Reed et al., 2012). The more individuals engage with content consistent with the knowledge structure of the active identity, the better the identity-fit; these associations are thus functional guides for identity enactment. Following this, we examine both semantic and emotional associations of discrete identities, and consider how attention may be selectively and strategically allocated to enhance identity-fit.

Attention is a basic cognitive process; the situational elements that receive attention define perception (Erdelyi, 1974; Posner & Peterson, 1990; Treisman, 2006). Whether invoked automatically or consciously, attention processes are the primary perceptual gatekeeper, through which information is sorted, managed, and evaluated (Erdelyi, 1974). Given limited resources and a potentially overwhelming amount of stimuli, individuals strategically allocate perceptual resources, scanning the environment to determine which receive further attention (Gray, Ambady, Lowenthal, & Deldin, 2004). While some stimuli may have an evolutionary “pull” on attention (Öhman, Flykt, & Esteves, 2001; Tooby & Cosmides, 1990), cognition is in the service of doing (James, 1890/1983); individuals selectively allocate cognitive resources, focusing attention according to their interests, needs, values, desires, and goals (Balcetis & Dunning, 2006; Bargh, 1982; Folk, Remington, & Johnston, 1992; Pieters & Wedel, 2007). Self-relevance is thus a critical determinant in what stimuli require further resources; information related to the self (e.g., one’s name), personal values, and concerns is given

preferential attention (Bargh, 1982; Moray, 1959). Though extant research has not examined the implications of an active social identity on the allocation of attention to identity-relevant stimuli, Oyserman (2009) argued that identities activate broad-based motivations to engage in identity-congruent actions and to use identity-congruent mindsets to understand the world. This procedural readiness prompts sense-making, providing a lens for attending to and interpreting the social environment, potentiating processes and actions that enhance identity-fit (Oyserman, 2009).

Consistent with the perspective that attention is allocated in self-relevant ways and that social identities are important self-structures which provide a lens for cognition, we propose that identity-based motivation will drive attention allocation, causing consumers to assign greater attention to stimuli that support their active identity, while reducing attention toward identity-inconsistent stimuli. We examine these attention processes in two studies, using two common social identities: athlete and volunteer. In the first study, we assess identity-based allocation of attention resources to negative emotional stimuli that are consistent with these social identities; anger for athletes and sadness for volunteers (Coleman & Williams, 2013). From a functional perspective, anger is likely associated with the athlete identity because its external locus of control emphasizes obstacles impeding goal pursuit, inspiring the desire to overcome barriers (Frijda, 1986). Similarly, sadness is likely associated with volunteers because it indicates a need for help (Izard, 1977) and promotes feelings of sympathy and willingness to behave prosocially (Small & Verrochi, 2009). Thus, we propose that individuals allocate attention toward stimuli to enhance enactment of their active identity; athletes attend to anger stimuli because they are linked to the athlete knowledge structure, while volunteers attend to sadness stimuli because of its association with the volunteer identity. Study one examines attention to emotional stimuli, demonstrating anticipatory attention allocation toward consistent and away from inconsistent emotional stimuli as individuals respond to cues about upcoming stimuli and deploy attention in anticipation of these identity-relevant events.

In Study 2, we extend our investigation to include attention allocated to identity-relevant semantic associations. For instance, the athlete knowledge structure includes concepts relating to competition and sports, while the volunteer’s structure emphasizes giving and charity. This provides evidence for broader identity-based attention allocation; examining both emotional and non-emotional words, we find that participants focus attention on identity-consistent stimuli, and divert attention away from identity-inconsistent ones. Across these two studies, we find that identity-potential occurs at a very basic cognitive level, with attention being directed toward perceiving an identity-relevant environment.

Study 1: Strategic Attention Allocation for Identity-Consistency

Study 1 demonstrates individuals engage in anticipatory attention shifts toward (away from) emotional stimuli that are identity-consistent (inconsistent). We find that attention allocation can be strategically selective; when participants have expectations about the identity-relevance of an upcoming event,

they preemptively distribute attention in preparation for that event, maintaining identity-consistency. Thus, we examine strategic allocation of attention toward anticipated identity-consistent emotional stimuli and away from anticipated identity-inconsistent emotional stimuli. We thus suggest that because consumers are motivated to experience identity-syntonic emotions (Coleman & Williams, 2013), they will strategically allocate attention to identity-relevant emotional stimuli in the environment, even in the absence of the actual emotional experience. To assess these differences in attention, a novel paradigm is developed, which measures both anticipatory and reactive attention allocation.

Procedure and Design

Participants completed a writing task (identity prime) and a perceptual task (attention measure). First, participants wrote for 5 minutes about a specific time when they performed as an *athlete* or a *volunteer*, and then listed 3–10 things they could do to demonstrate they are an *athlete/volunteer* (Reed, 2004).

Participants then moved to the attention task (T Task), where they quickly and accurately identified whether many examples of the letter T were either right-side up (z-key) or up-side down (m-key). This was difficult as, in each presentation, the letter was small (3/4 inch), presented briefly (115 ms), and at low contrast (80% black letter on a 40% black background). For participants to accurately identify the T orientations, they must focus their attention. Thus, decreased accuracy indicates participants shifting attention away from the target location, while high accuracy demonstrates attention focused on the target location. Photographs were interspersed in the T task, providing the identity-consistent or -inconsistent emotional stimuli. Two types of pictures were presented (all from the International Affective Picture System; Lang, Bradley, & Cuthbert, 2005): mildly positive (e.g., flowers) and sad (e.g., crying children).

Importantly, pictures were preceded by a probabilistic cue (Fig. 1). The 'sad' cue (red; 8 trials) indicated the upcoming picture would likely be sad: on 6 of the red cue trials the photo was sad, while 2 trials showed a positive photo. The 'positive' cue (green; 8

trials) indicated the picture would likely be positive (6 trials were positive, 2 were sad). Thus, the red and green cues allowed participants to anticipate the upcoming picture and deploy their attention according to identity-fit; athletes wanting to avoid sad stimuli could shift attention away from the T location after a red cue, but might focus on the T location after a green cue. Volunteers, alternatively, might seek out sad stimuli by shifting attention toward the T location after a red cue.

Participants completed 16 trials, each featuring a series of Ts, interrupted by cues and pictures. The number and orientation of the Ts varied randomly to reduce trial predictability and maintain the cue's informational value. Within the task, in response to cues and photographs, participants could either focus attention on the Ts and the emotional photos or shift attention away from the Ts and photographs. Attention is measured by accuracy of the T orientation assessments following cues and photographs: attention shifts lead to decreased performance.

The study is a mixed design with identity (athlete, volunteer) between-subjects, and cue (red, green) and picture (positive, sad) within-subjects. Attention allocation is assessed both following the cue and after the photograph. After seeing a cue (red, green), but before a picture is shown, we expect a two-way interaction between cue and identity: differences between the identities should emerge only after the identity-relevant cue (red), such that volunteers seeing a red cue should anticipate an identity-consistent sad photograph, keeping their attention focused on the T-location, resulting in accurate T assessments. However, athletes seeing a red cue should have reduced accuracy as they anticipate an identity-inconsistent cue and shift attention from the focal location. After seeing a photograph (sad or positive), we predict a three-way interaction: volunteer identity participants will remain focused on the target location, anticipating and experiencing an identity-consistent sad photograph, and thus show high accuracy. Athlete participants will shift attention away from red cues and sad pictures, leading to reduced accuracy. As positive emotions (e.g., happiness) are equally relevant for athletes and volunteers, we expect no accuracy differences following the green cues or positive photographs.

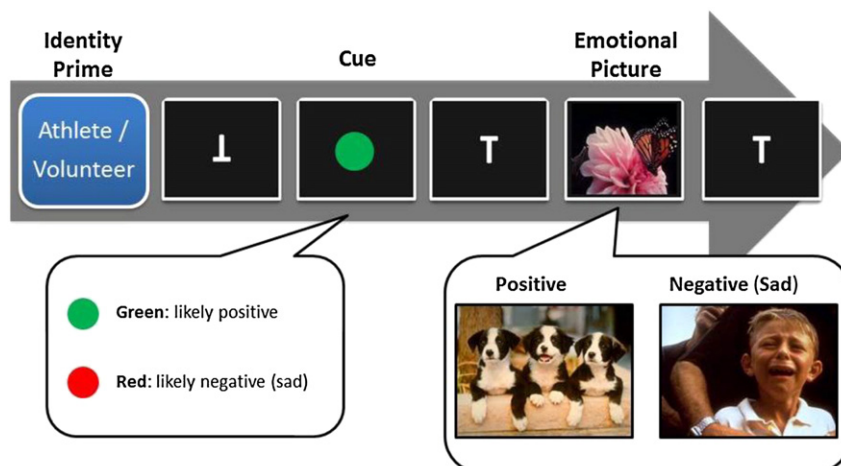


Fig. 1. Study 1: Procedure.

Participants and Procedure

Students and staff ($N = 52$; 56% female; average age 22, range 18–63) at a northeastern university participated during an hour-long experimental session, receiving \$10. Participants completed 16 trials: each consisted of T identifications (5–7 Ts), a cue (red or green), more T identifications (3–5 Ts), a picture (positive or sad) and another set of T identifications (3–7 Ts). Afterwards, participants were debriefed and paid.

Results

Anticipatory Attention Shifts

A two-factor mixed ANOVA with identity between-subjects and cue as a repeated measure was performed on average post-cue accuracy. There were no significant main effects, but a significant cue by identity interaction emerged ($F(1, 50) = 3.964, p = .052$; Fig. 2), as predicted. Contrasts show an active volunteer identity increased accuracy after a red cue ($M = 89.0\%$) compared to green ($M = 84.9\%$; $F(1, 50) = 4.109, p = .048$). In the athlete condition accuracy was better following a green cue ($M = 86.4\%$) than a red cue ($M = 82.3\%$; $F(1, 50) = 4.312, p < .05$). Within the red cues, there was a significant difference between the volunteer ($M = 89.0\%$) and athlete identity ($M = 82.3\%$; $F(1, 50) = 5.122, p < .05$). Results demonstrate that an active identity led to strategically allocated attention in anticipation of the upcoming picture after receiving a cue about its identity relevance. This supports our theory that attention is used in service of identity goals, and that attention allocation can be forward-looking.

Reactive Attention Shifts

A three-way mixed repeated measure ANOVA was run on average accuracy in the post-picture period. A main effect of identity was significant ($F(1, 50) = 5.912, p < .05$); those with an active volunteer identity were more accurate ($M = 86.3\%$) than athletes ($M = 74.3\%$). No other main effects were significant. A significant interaction between identity and the cue emerged, ($F(1, 50) = 5.336, p < .05$). Following a red cue, participants

with active athlete identities performed significantly worse than volunteers ($M_{\text{athlete}} = 64.6\%$ vs. $M_{\text{volunteer}} = 88.9\%$; $F(1, 50) = 8.579, p < .01$). Performance was not different for the two identities following the green cues ($p > .15$).

The predicted three-way interaction between identity, cue, and picture type emerged (Fig. 3; $F(1, 50) = 5.211, p < .05$). Participants in the athlete condition who saw a positive picture preceded by a red cue, had poorer performance ($M = 66.7\%$) than after positive pictures preceded by green cues ($M = 84.8\%$; $F(1, 50) = 6.939, p < .05$). However, when participants with active athlete identities saw a sad picture preceded by a red cue, performance declined ($M = 62.5\%$) relative to sad pictures preceded by green cues ($M = 75.8\%$; $F(1, 50) = 4.063, p < .05$). These results suggest that athletes realized that red cues signaled an identity-inconsistent picture, and shifted attention away, decreasing accuracy.

Participants with active volunteer identities who saw a positive picture preceded by a red cue, showed *increased* accuracy relative to positive pictures preceded by a green cue ($M_{\text{red}} = 94.7\%$ vs. $M_{\text{green}} = 76.8\%$; $F(1, 50) = 3.870, p = .055$). When volunteers saw a sad picture, it did not matter which cue they had seen before it ($M_{\text{green}} = 94.7\%$, $M_{\text{red}} = 83.2\%$, $p > .15$). Results suggest those with salient volunteer identities did not see the red cues or sad pictures as emotional events to be avoided; as sadness is identity-consistent, they focused attention on the target location, resulting in high accuracy.

Discussion

Study 1 introduces a paradigm to measure attention and demonstrates that individuals can strategically allocate attention toward identity-consistent emotions and away from inconsistent ones. Volunteer identity participants did not shift attention away from the red cues or sad pictures, but rather increased attention toward sad stimuli. In contrast, athlete identity participants showed performance decrements following sad pictures and red cues, as they shifted attention away to avoid sad stimuli. Shifts were strategic in response to cues when participants formed an expectation of the upcoming picture (identity-consistent or inconsistent). Evidenced by both the anticipatory and reactive

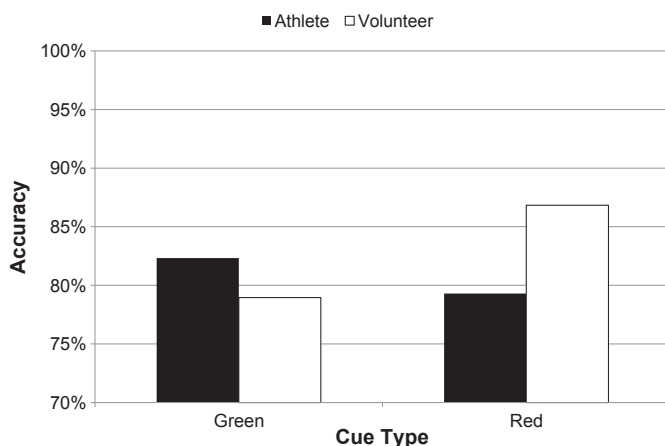


Fig. 2. Study 1: Anticipatory Attention Allocation before Emotional Stimuli Presentation. Note: There were 27 participants in the athlete condition and 25 in the volunteer condition.

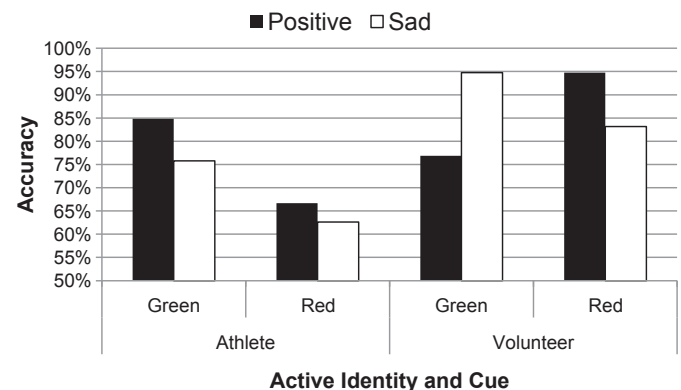


Fig. 3. Study 1: Strategic Attention Allocation toward Emotion Profile-Consistent Stimuli. Note: There were 27 participants in the athlete condition and 25 in the volunteer condition.

attention allocation, this study demonstrates that active identities potentiate attention toward identity-consistent stimuli, and away from inconsistent environmental elements. Study 2 broadens our examination of attention, considering both emotional and non-emotional stimuli that differ in their identity-relevance.

Study 2: Identity-Fit Drives Attention Allocation

Identity-relevant stimuli are privileged in a variety of ways, from more positive evaluations, to higher behavioral adoption, greater resistance to counter-persuasion, and even increased memory for identity-linked concepts (for a review see: [Reed et al., 2012](#)). Underlying these effects is the motivation to act in identity-consistent ways, and to approach or potentiate cognitions, emotions, and behaviors that enhance identity-consistency ([Coleman & Williams, 2013](#); [Oyserman, 2009](#); [Reed et al., 2012](#)). While previous work has demonstrated the “identity premium” that identity-relevant stimuli receive, these effects have focused on higher-order mental processes. We build upon and advance past work to demonstrate that this identity-privilege occurs at a basic cognitive level; attention allocation. Study 2 extends results from Study 1, demonstrating that this identity-consistent allocation of attention occurs for both emotional and non-emotional stimuli. We also employ the widely-used visual probe paradigm to measure selective attention ([MacLeod & Mathews, 1988](#); [MacLeod, Mathews, & Tata, 1986](#)).

We activate two social identities (athlete and volunteer) and examine attention toward identity-relevant cues, both emotional (anger and sadness; [Coleman & Williams, 2013](#)) and non-emotional (athletic and volunteering). Given associations within these identities’ knowledge structures, we anticipate participants with an active athlete identity should selectively focus on anger- and athletic-related stimuli, avoiding sadness- and volunteering-related cues, while the reverse should be true for volunteers.

Procedure and Design

Students and staff at a northeastern university ($N = 67$; 62% female; average age 19, range 18–46) participated in this study in an hour-long lab session for \$10, completing two “unrelated” tasks: a writing task (identity prime) and an attention task (visual probe). Participants were randomly assigned to complete one identity prime (athlete, volunteer, control) as in study 1 ([Reed, 2004](#)). In the control condition, participants wrote about their day yesterday and listed 3–10 things they planned to do tomorrow.

The visual probe task measures attention toward and away from stimuli ([MacLeod & Mathews, 1988](#); [MacLeod et al., 1986](#)) and involves participants responding to a neutral stimulus (dot) following the presentation of stimulus pairs (words). First, two words are presented simultaneously on-screen, side-by-side. Attention is measured when participants indicate the location of a secondary stimulus, a small dot, which could appear in the location of either word, immediately after both words disappear from the screen. Response latencies for probes in each location (left vs. right) reveal attention allocation across the two locations;

participants are slower to locate a dot if they had deployed attention to the other (away from where the dot appears). For example, a participant with an active athlete identity might see an identity-consistent word pair (e.g., enraged + balloon). The dot might then appear behind the neutral word (balloon). If so, the participant should be slower to respond to the dot’s location because we anticipate he would have allocated his attention toward the anger word (enraged). However, if the participant saw an identity-inconsistent pair (e.g., grief + apple) and the dot appeared behind the neutral word, we would expect him to be faster to respond; evidence that he focused away from the inconsistent stimulus (grief) and onto the neutral location (apple). Thus, by presenting words in pairs we can assess whether participants are allocating attention to a stimulus or away from it in ways that are identity-consistent.

Stimuli

Five sets of words were developed for the tests: anger-related words, sadness-related words, athletic words, volunteering words, and neutral words. An initial set of 24 words of each emotion type, 24 of each identity type, and 200 neutral words were pretested online by 100 individuals. Each participant rated 40 randomly selected words on how angry, sad, neutral, athletic, charitable, and familiar each was on 7-point scales (1 = not at all, 7 = extremely). On the basis of these ratings, 12 anger words, 12 sad words, 12 athletic words, 12 volunteering words, and 96 neutral words, matched for familiarity and length, were selected ([Table 1](#)).

Each identity-relevant word was paired with a neutral word, resulting in 12 anger, 12 sadness, 12 athletic, and 12 volunteering pairs; 48 neutral-only word pairs were fillers. Critical pairs thus contained one identity-relevant word and one neutral word; no pairs contained two identity-relevant words. Each pair was presented for 1500 ms, separated by a horizontal distance of 3 inches (from [MacLeod et al., 1986](#)). Following word-pairs, a small dot appeared in the same location as one of the two words and remained on screen until participants indicated whether it was on the left (z-key) or right (m-key). The program recorded the response (left/right) and response latency. A fixation point was presented for 1500 ms between each trial. Within the 96 trials, 48 contained a critical pair, and are the trials of interest. The location of the identity-relevant word within the pair (left/right) was determined randomly, as was the dot position.

Thus, this is a 3 identity (athlete, volunteer, control) by 4 word type (anger, athletic, sad, volunteering) by 2 probe position (behind identity word, behind neutral) mixed design; social identity was between-subjects, while word type and probe position were within-subjects. Attention allocation for identity-fit will result in an interaction of word type and probe position. We predict that this interaction will depend on participants’ active identity, evidenced by focusing on identity-consistent words. Athlete identity participants should allocate attention toward anger- and athletic-related words; providing faster responses when the dot is located behind anger/athletic words, and slower responses when the dot is away from the anger/athletic location. Volunteers should show faster responses when the dot is located behind sad and volunteering words, but slower times when the dot

Table 1
Study 2 Stimuli: Anger, Sadness, Athletic, and Volunteering Words.

	Anger	Sadness	Athletic	Volunteering
1	mad	sad	run	aid
2	fury	blue	game	care
3	angry	grief	coach	grace
4	livid	upset	medal	mercy
5	bitchy	sorrow	player	donate
6	malice	lonely	sports	relief
7	peevied	misery	winner	victim
8	enraged	crushed	athlete	charity
9	hateful	despair	compete	empathy
10	hostile	unhappy	fitness	helpful
11	outraged	dismayed	exercise	goodwill
12	frustrated	depressed	gymnasium	volunteer

is behind the neutral word in a sad/volunteering pair. We also anticipate individuals will divert attention away from identity-inconsistent words: athletes should show slower reaction times when the dot is in the same location as a sad/volunteering word, and faster times when the dot is behind the neutral word in a sad/volunteering pair. Volunteers should divert attention by responding more slowly when the dot is co-located with anger/athletic words and more quickly when the dot is behind the neutral word in an anger/athletic pair.

Results

Analyses were run on log-transformed RTs for correct responses only (error rate: 0.5%; Ferguson, 2007; MacLeod & Mathews, 1988). For explication, Table 2 and reported means are untransformed. The RTs by word type (averaged across the 12 angry, 12 athletic, 12 sad, and 12 volunteering trials) were entered into a repeated-measures ANOVA with word type (angry, athletic, sad, volunteering) and probe position (behind identity-relevant, behind neutral) as within-subject variables and identity (athlete, volunteer, control) between-subjects. No significant main effects were found, however the predicted three-way interaction emerged ($F(6, 186) = 20.889, p < .001$; see Table 2). The interaction was reduced using the Tukey Test to perform individual mean comparisons. There were no significant differences in RTs in the control condition ($ps > .11$), but participants with active athlete or volunteer identities had a marked slowing in responses both when the probe was behind the neutral word on an identity-consistent trial, and when the probe was located behind an identity-inconsistent word.

Athletes were faster when locating a dot behind anger words ($M = 394.84$) than when the dot was behind the neutral word on anger trials ($M = 454.93$; $t(23) = 7.040, p < .001$), as well as faster for athletic words ($M = 406.45$) versus the neutral word on athletic trials ($M = 463.76$; $t(23) = 4.072, p = .001$). On the other hand, athletes were slower when the dot was behind sad words ($M = 479.15$) than the neutral word on sad trials ($M = 410.77$; $t(23) = -11.785, p < .001$), and for volunteering words ($M = 459.08$) compared to the neutral word on volunteering trials ($M = 427.22$; $t(23) = -3.166, p = .004$). This shows that athletes are directing attention toward anger and athletic words, and away from sad and volunteering- words. Importantly, there

Table 2
Study 2: Reaction Time (ms) by Dot Probe Location and Word Pair Type.

Identity	Word Pair Type	Dot Probe Position		Contrast: Neutral vs. Identity-Relevant Probe Position
		Neutral	Identity-Relevant	
Athlete	Anger	454.93	394.84	$t(23) = 7.040, p < .001$
	Sadness	410.77	479.15	$t(23) = -11.785, p < .001$
	Athletic	463.76	406.45	$t(23) = 4.072, p = .001$
	Volunteering	427.22	459.08	$t(23) = -3.166, p = .004$
Control	Anger	441.76	443.91	$t(19) = -.165, p > .85$
	Sadness	452.57	453.97	$t(19) = -.115, p > .90$
	Athletic	458.50	472.35	$t(19) = -.557, p > .55$
	Volunteering	477.54	464.67	$t(19) = .739, p > .45$
Volunteer	Anger	452.17	498.93	$t(22) = -2.420, p = .024$
	Sadness	505.11	435.77	$t(22) = 7.010, p < .001$
	Athletic	447.67	473.10	$t(22) = -4.574, p < .001$
	Volunteering	484.07	398.73	$t(22) = 4.431, p < .001$

Note: Word Pair Type refers to the identity-relevant word type shown in a particular pair, such that the pair [grief, apple] would be “Sadness”, or [compete, bottle] would be “Sport”. Dot Probe Position refers to the location of the dot on a particular trial; the neutral column is when the dot was behind the neutral word of the word pair (behind apple on [grief, apple]), the identity-relevant column is when the dot was behind the identity associated word (behind compete on [compete, bottle]). Thus, the first row of this table represents the average reaction time for participants with an active athlete identity, responding to the location of a dot on an anger word pair (e.g., [fury, tree]), when the dot was behind the neutral word (tree; 454.93) versus behind the identity-relevant word (fury; 394.84); the final column presents the contrast between these two times.

was no difference in the response times for athletes when the dot probe was behind an anger word ($M = 394.84$) versus an athletic word ($M = 406.45$; $p > .50$), suggesting that within the knowledge structure of the athlete identity, anger and athletic words are equally strongly associated.

Similarly, volunteers were faster when locating a dot behind sad words ($M = 435.77$) than when the dot was behind the neutral word on sad trials ($M = 505.11$; $t(22) = 7.010, p < .001$), and for volunteering words ($M = 398.73$) versus neutral words on volunteering trials ($M = 484.07$; $t(22) = 4.431, p < .001$). Also, volunteers were slower when the dot was behind anger words ($M = 498.93$), than when the dot was behind neutral words on anger trials ($M = 452.17$; $t(22) = -2.420, p = .024$), and for athletic words ($M = 473.10$) versus neutral words on athletic trials ($M = 447.67$; $t(22) = -4.574, p < .001$). Volunteers are thus directing attention toward sad and volunteering words, and away from anger and athletic words. For volunteer identity participants there were no significant differences in response times to probes located behind sad words ($M = 435.77$) versus volunteering words ($M = 398.73$; $p > .20$), suggesting that sadness and volunteering concepts are equally strongly associated with the volunteer social identity.

Discussion

Study 2 uses the dot-probe paradigm to measure identity-driven attention allocation toward emotional and non-emotional identity-relevant stimuli. Results build upon Study 1, demonstrating that social identities increase attention

toward identity-consistent stimuli, but allocate attention away from identity-inconsistent materials. Participants with an active athlete identity were fastest to detect probes behind anger and athletic words (identity-consistent targets) or a neutral word on a sad or volunteering trial (away from identity-inconsistent targets). Participants with an active volunteer identity were fastest to detect probes behind sad and volunteering words (identity-consistent targets) or neutral words on angry and athletic trials (distant from identity-inconsistent targets). Results suggest that social identity motivates attention allocation, such that participants direct attention toward identity-consistent and away from identity-inconsistent stimuli. Thus, attention is not only drawn toward stimuli congruent with an active identity, but away from incongruent materials—suggesting goal-directed attention not only increases processing of relevant information (Folk et al., 1992) but also reduces attention to inconsistent information.

General Discussion

Identity-based motivation potentiates procedures and actions that fit a salient identity (Oyserman, 2009). Thus, consumers often examine and understand the environment through an identity-specific lens (Kleine et al., 1993; Oyserman, 2009). While previous work has demonstrated the “identity premium” that identity-relevant stimuli receive, these effects have focused on higher-order mental processes. The present research extends these results to find that identity-based motivation drives basic cognitive processes such as attention allocation, in service of subsequent mobilization of higher-order processing and behaviors. Two studies demonstrate that individuals allocate attention to enhance identity-fit. Study 1 examined attention toward emotional stimuli, and found this process can be strategic, as attention shifts occur when the individual anticipates a stimulus that is identity-consistent (inconsistent). Study 2 broadened the set of stimuli to both emotional and non-emotional identity-relevant cues, and using a different attentional paradigm, showed that individuals are sensitive to identity-consistent stimuli, while also shifting attention away from stimuli that are identity-inconsistent.

The knowledge structure of a social identity contains associations to cognitions, emotions, attitudes, values, and behaviors (Reed, 2004; Reed et al., 2012; Kleine et al., 1993; Coleman & Williams, 2013). These associations function as identity guides, promoting and enhancing identity enactment. Previous research has demonstrated that identity-associated concepts receive preferential treatment, such as more positive attitudes, greater behavioral uptake, and stronger memory traces (Reed et al., 2012). We argue that the functional aspects of these associations also lead to preferential attention, such that consumers direct attention toward identity-consistent stimuli, while simultaneously diverting attention away from identity-inconsistent information. This supports the functional purpose of the social identity’s knowledge structure: feeling the “right” emotion, or experiencing the “right” cognitive mindset improves identity-fit. Across two studies we demonstrate that identity-actuation occurs at a very basic cognitive level, such that the very environment which consumers perceive, and thus

inhabit (James, 1890/1983), is altered via attention allocation—enhancing identity-fit and enactment.

We examined only two social identities, one relevant emotion and a few semantic associates for each. Additional research should generalize these findings to other identities, semantic cues, and emotions. Evidence that individuals shift attention away from identity-incongruent cues suggests future research. What might happen if individuals attend to identity-inconsistent emotions or words? Would attending to sadness create an identity-threat for athletes? Future research could examine whether identity-inconsistent stimuli act as identity threats, and whether that encourages a vigilant mindset to protect against said threats.

This research builds on the motivational aspects of identity salience, finding that social identities direct attention. Accordant with theories that suggest cognition and perception are constructed (James, 1890/1983), that meaning and understanding arise through interpreting features of the environment (Fiske, 1992), and that identities direct and influence sense-making (Oyserman, 2009; Reed et al., 2012), we find that individuals strategically allocate attention in service of identity-fit.

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