Between two selves: Comparing global and local predictors of speed of switching between self-aspects

Christina M. Brown, Veronika S. Bailey, Harrison Stoll, and Allen R. McConnell

ABSTRACT
Self-concepts are composed of multiple self-aspects that vary in their momentary accessibility. When a particular self-aspect is active, it guides one’s cognition and behavior in a context-specific fashion. The current research quantified the ease with which people switch from one active self-aspect to another using a novel reaction time approach. Specifically, two studies tested how self-aspect switching speed is influenced by global (i.e., self-complexity) and local (i.e., self-aspect importance) features of the self-concept. The findings revealed that people transition between self-aspects more slowly when switching from a more important self-aspect to a less important one. In other words, important self-aspects are privileged within the working self-concept.

The self-concept is a dynamic memory structure that reveals different patterns of activation as a function of context, goals, and momentary experiences (Higgins, 1987; Linville, 1985; Markus & Kunda, 1986; Markus & Nurius, 1986; McConnell, Brown, & Shoda, 2013; Roberts & Donahue, 1994; Showers, 2002). Over time, it becomes represented by relatively abstract trait knowledge more than by episodic experiences (e.g., Klein, Babey, & Sherman, 1997; Klein, Loftus, Trafton, & Fuhrman, 1992), although it continues to contain affective, visual, and sensorimotor information about the self as well (Schleicher & McConnell, 2005). The self-concept, however, is not a disordered repository of all self-knowledge. Instead, information about the self is arranged into meaningful units known as self-aspects. Self-aspects provide an important organizing framework for people’s self-relevant experiences (e.g., McConnell, 2011; McConnell, Rydell, & Brown, 2009). For example, a woman might view her self-concept as composed of the self-aspects “wife,” “mother,” “with friends,” “marketing director,” and “when in a good mood,” reflecting different facets of self-knowledge. Yet, what happens when she has to transition between making an important business presentation in the afternoon and having an anniversary dinner with her husband that evening? Can she do this quickly, or might one of her self-aspects be more “sticky” than others, making such
transitions more difficult? The current research examines how self-concept representation affects the ease with which people switch between their self-aspects.

**Active self-aspects**

The self-aspects that comprise people’s self-concepts are idiosyncratic, reflecting distinctions in how people see themselves in different contexts, in different social relationships, when pursuing particular goals, and when experiencing different affective states (McConnell, 2011). However, they can also change or be disrupted by external experiences, such as the dissolution of a close relationship or a job loss (e.g., McIntyre, Mattingly, Lewandowski, & Simpson, 2014; Slotter, Gardner, & Finkel, 2010).

Self-aspects vary in their moment-to-moment accessibility, just like other concepts in memory (Bruner, 1957). When self-aspect content is activated, its memorial associations shape perceptions, experiences, and behavior. For example, women are more susceptible to stereotype threat in the domain of math when their “female” identity is salient, relative to when their currently active self-aspect is one that is not associated with pejorative gender stereotypes (e.g., “college student” self-aspect; Rydell & Boucher, 2010; Shih, Pittinsky, & Ambady, 1999). Similarly, the attributes associated with an active self-aspect guide how people interpret ambiguous information about others (Brown & McConnell, 2009a). Active self-aspects are essentially internal contexts. As such, they produce context-dependent memory effects just like those evoked by the physical environment, resulting in superior memory when the same self-aspect is active during both learning and retrieval (Garczynski & Brown, 2013).

Although researchers can manipulate a person’s active self-aspect, there are undoubtedly individual differences in the cost of these self-aspect switches. For example, some people find it easier to arrive at the office ready to work, whereas others ruminate over a morning conversation with family at breakfast. One factor that may contribute to these differences in shifting among identities may be the degree to which people’s self-aspects overlap with one another (e.g., Rafaeli-Mor & Steinberg, 2002). For example, one person could see herself as possessing very similar attributes in her “work” and “home” self-aspects, whereas another individual who possesses the same self-aspects might see them as reflecting very different, non-overlapping parts of himself. When a person’s active self-aspect conflicts with other available self-aspects, the conflicting self-aspects are cognitively inhibited (Hugenberg & Bodenhausen, 2004). Even more important, switching between two self-aspects is a depleting experience that drains central executive resources if those two identities are at odds with each other (e.g., bicultural people who see their two cultural identities as non-overlapping; Kamat & Gardner, 2014).

Just as specific features of a person’s self-concept (i.e., conflicting or overlapping self-aspects) cause differences in the cost of switching between two self-aspects, they may also determine the ease with which a person can switch between self-aspects. The facility or ease with which people switch between self-aspects has not yet been studied, and the current research explored this issue directly. Specifically, we examined how the ability to switch between self-aspects may be influenced by both global (i.e., overall structure of the self-concept) and local (i.e., characteristics of specific self-aspects) features of self-concepts.
Self-complexity and self-aspect importance

The organization of self-aspects within the self-concept is often studied in the form of self-complexity, which refers to the number and interrelatedness of self-aspects (Linville, 1985). People with many self-aspects that are relatively non-overlapping in nature (i.e., the attributes or traits associated with their self-aspects are relatively unique) have greater self-complexity. In contrast, people lower in self-complexity possess fewer self-aspects and have more shared attributes among them. When self-aspects share attributes, the common attributes provide interconnections between associated self-aspects, increasing the spread of activation within the associative network of the self-concept. As a consequence, when one self-aspect is implicated by a self-relevant event, other self-aspects are also affected in proportion to the degree to which they share attributes with the targeted self-aspect (McConnell, Rydell, et al., 2009). Thus, people lower in self-complexity have stronger affective reactions to personal events (Linville, 1985), and this, in turn, has consequences for outcomes ranging from well-being (McConnell, Strain, Brown, & Rydell, 2009) to self-regulation (Brown & McConnell, 2009b; Renaud & McConnell, 2002).

We reasoned that just as switching between two compatible self-aspects drains fewer executive resources than switching between conflicting self-aspects (Kamat & Gardner, 2014), people with lower self-complexity may find it easier to switch between self-aspects because their more integrated (i.e., highly interconnected) self-concepts should facilitate spread of activation between self-aspects (McConnell, Rydell, et al., 2009). Thus, in the current work, we predicted that people with lower self-complexity would switch between two self-aspects more quickly than people greater in self-complexity. Specifically, number of self-aspects (NSA) should positively predict self-aspect switching time (i.e., more self-aspects should predict slower switching). People who possess many self-aspects most likely spend relatively less time in each self-aspect compared to people who only possess a few self-aspects, resulting in relatively lower accessibility of any given self-aspect (i.e., more time spent in a particular context should increase self-aspect accessibility, all things being equal). If people with fewer self-aspects activate those self-aspects more frequently, then it should be easier for them to switch among those few, highly accessible self-aspects. Likewise, overlap in attributes across self-aspects should predict faster switching time because when self-aspects share attributes, they possess memorial associations that enable spreading activation (e.g., McConnell, Rydell, et al., 2009). Therefore, people who have more connections across their self-concepts (i.e., greater overlap) should be faster to switch between self-aspects.

In addition to the global structure of self-concepts, the importance of specific self-aspects may also predict switching ease. Organizational research has found that employees whose “work” identity is personally central are more likely to successfully detach from home-related concerns while at work, although having a salient “work” identity also predicts greater intrusion of work-related concerns when at home (Sanz-Vergel, Demerouti, Bakker, & Moreno-Jiménez, 2011). In other words, a highly important “work” self-aspect is associated with better inhibition of one’s “home” self-aspect when the person is at work, but also with continued activation of one’s “work” self-aspect after the person returns home. Thus, we predicted that participants should switch between self-aspects faster when switching from a less important self-aspect to a more important one than vice-versa. All things being equal, important self-aspects should be relatively more accessible in memory than less important
ones, facilitating the activation of more important self-aspects following the activation of less important self-aspects.

**Operationalizing a self-aspect switch**

In daily life, self-aspects can be activated by both external cues and internal goals. For example, a woman might switch into her “work” self-aspect when she arrives at her workplace, when she reads emails from colleagues while waiting in line at the grocery store, or when she mentally constructs her work to-do list in the shower. The episodic and semantic self-knowledge that represent her “work” self-aspect become more accessible regardless of whether her self-aspect was passively primed by the environment or intentionally activated by her own goals.

Laboratory studies have successfully activated self-aspects through their semantic (i.e., trait) and episodic (i.e., behavior) associations. For example, a top-down approach to self-aspect activation is to have participants describe a particular self-aspect by characterizing the traits and behaviors that comprise it (e.g., Brown & McConnell, 2009a; Garczynski & Brown, 2013; McConnell, Rydell, et al., 2009), while a bottom-up approach targets individual trait attributes, which activate an associated self-aspect through spreading activation (McConnell, Rydell, et al., 2009). Active self-aspects are manipulated by making self-knowledge accessible, so we measured “self-aspect switching ability” by recording speed of retrieving this same self-knowledge. Our measure was modeled after a reaction time task developed by Klein et al. (1997) for comparing episodic and semantic self-knowledge (see also, Klein et al., 1992; Sherman & Klein, 1994).

Klein and colleagues have measured the speed with which participants complete two tasks: *Recalling* a specific memory from their life and deciding whether a trait describes themselves. We had participants complete these two tasks in reference to a specific self-aspect (e.g., “me in school”) to ensure that performing the task required activating a self-aspect. To measure switching ease, we first had participants complete both tasks (*describe* and *recall*) sequentially with respect to a single self-aspect. The difference in speed between the two tasks revealed participants’ ability to switch between *describe* and *recall* tasks involving only one self-aspect (a baseline switch measure).

Next, participants again completed a *describe* task followed by a *recall* task, but this time, the two tasks were in reference to different self-aspects. The difference in speed between these two tasks represented participants’ ease of switching between two different self-aspects (which we refer to as the critical switch). Because participants were also switching task type (*describe* vs. *recall*), we controlled for their baseline switch performance (during which they made a task switch but not a self-aspect switch). The purpose of the current research is not to establish how long a self-aspect switch takes relative to a task switch. Instead, we examined factors that predict relative differences in ability to switch self-aspects (our focus) while controlling for general task-switching ability. In the current work, we compared global (NSA, overlap of self-aspect attributes) and local (self-aspect importance) features of participants’ self-concepts as predictors of speed of switching between two self-aspects (i.e., critical switch, controlling for baseline switch). We expected relatively faster switching between self-aspects (1) for people with fewer self-aspects, (2) for people with more attribute overlap across self-aspects, and (3) for people switching from a less important self-aspect to a more important self-aspect.
Study 1

Method

Participants
Participants were 47 students at Arcadia University who received credit toward a course research requirement in exchange for participation. Three participants exited in the middle of the switching task to ask the experimenter to explain the task again (indicating they began without understanding the instructions), and their data were excluded. A fourth participant’s data were also excluded because of a computer error that terminated the second switching task, leaving a sample of 43 participants (28 women; $M_{age} = 19.67$, $SD_{age} = 2.61$). It was determined in advance that we would recruit 50 participants for the within-subject design, although we fell slightly short of this goal and had to terminate data collection when the semester ended.

Measures

Self-complexity. Self-complexity was measured using a computerized version of Linville’s (1985) trait-sorting task (see McConnell et al., 2005). Participants were given a list of 60 trait adjectives (e.g., talkative, moody, practical) and were told to sort them into groups representing meaningful aspects of themselves (i.e., self-aspects). After placing traits into a group, they provided a label describing the group. There was no limit to the number of groups participants could make, although they were instructed to stop when generating more groups became difficult. Traits could be placed in more than one group, and participants were not required to use all of the traits. The traits participants sorted were Donahue, Robins, Roberts, and John’s (1993) 60 attributes derived from the Five Factor Model of personality (McCrae & John, 1992). Past work has established that different trait list configurations used in self-complexity research do not qualify results (McConnell et al., 2005).

There are several approaches to quantifying self-complexity. The initial measure of self-complexity was Linville’s (1985) application of Scott’s (1969) $H$ statistic, which calculates the dispersion of unique dimensions used to describe the self. This statistic was intended to capture both number and interrelatedness of self-aspects, providing a single overall measure of self-complexity. However, the $H$ statistic weights NSA more heavily than attribute overlap (e.g., $r > .80$ between $H$ and NSA in many studies) and attribute overlap often correlates with $H$ in the incorrect direction (e.g., Luo & Watkins, 2008; Pilarska & Suchańska, 2014; Rafaeli-Mor, Gotlib, & Revelle, 1999). Because of these issues involving the use of $H$, a preferred approach is to assess NSA and overlap separately (e.g., Brown & Rafaeli, 2007; Rafaeli-Mor et al., 1999). In addition, we expected these two variables to predict self-aspect switching through different mechanisms (frequency of activation for NSA and spreading activation for overlap, respectively). We therefore chose to measure and test them separately instead of using $H$.

NSA is a simple count of the number of groups participants created, and we used Rafaeli-Mor et al.’s (1999) overlap ($OL$) statistic to quantify self-aspect overlap. $OL$ represents the average number of attributes shared between two self-aspects across all possible self-aspect pairs.

Self-aspect importance. Three self-aspects common to college students were targeted in this study: Home, school, and friends. At the end of the study, participants were asked, “How important is “yourself [at home]/[in school]/[with friends]” to your overall sense of who you are?” They rated the importance of each self-aspect on a scale of 1 (not at all important) to 7 (very important).
Materials

Self-aspect switching task: overview. To assess the ease with which participants switch between two self-aspects, we created a computer task consisting of four blocks (see Figure 1). In each block, participants viewed 15 different personality traits one at a time and were asked to think about the trait in reference to a specific self-aspect of theirs. Participants were told to react in one of two ways to each trait, borrowing from Klein et al. (1997): For describe trials, participants made a simple yes or no decision about whether the trait described them. For recall trials, they recalled a specific time in their lives in which they exhibited the trait.

As in Klein et al. (1997), participants were instructed to make the yes/no describe decision in their head or to recall the memory in their head. When they finished making their decision or recalling the memory, they pressed the spacebar on the computer keyboard. Similar to Klein et al., we were interested in the time participants needed to complete each trial (measured as the time between display and key press, in milliseconds, using DirectRT software).

Importantly, participants were asked to think about each trait in terms of a specific self-aspect. The same self-aspect was used for all trials within a block. For example, if the self-aspect for a block was “me at home,” participants were told to decide whether the trait described themselves at home (describe trial) or to recall a memory from a time they exhibited that trait at home (recall trial). The trait appeared in the center of the screen. At the top of the
screen were the instructions to describe or recall and the name of the specific self-aspect participants were to think about. For example, participants saw, “DESCRIBE at HOME then hit spacebar,” for a describe trial and home self-aspect, and “RECALL in SCHOOL then hit spacebar” for a recall trial and school self-aspect.

Each block contained 15 trials, each trial presenting one trait. The trial type (describe or recall) and self-aspect (at home, in school, with friends) were the same for each block. The only task changing from trial to trial within a single block was the particular trait shown to participants. There were four blocks total, each with a unique set of 15 traits from the list of 60 used in the self-complexity task. Instead of randomizing the traits within each block, we distributed the traits such that each block had a nearly equal number of positive and negative traits (7 or 8 each, depending on block) while avoiding close synonyms (e.g., outgoing and talkative) in the same block.

Self-aspect switching task: baseline switch and critical switch. Across studies, Blocks 1 and 2 always used the same self-aspect so participants would not be switching self-aspects when proceeding from Block 1 to Block 2. Block 1 contained describe trials while Block 2 had recall trials. The mean reaction time difference between Block 2 and Block 1 provided a baseline measure of participants’ switching speed, specifically, how easily participants switched from a describe task to a recall task within a single self-aspect. Smaller response time (RT) differences between blocks indicate faster switches.

Likewise, Block 3 contained describe trials and Block 4 contained recall trials. This time, however, participants also switched self-aspects when switching from Block 3 to Block 4. The same self-aspect was used for Blocks 1 and 2, and we will refer to that as SA1 (self-aspect #1). A different self-aspect was used for Block 3 (SA2), and the remaining self-aspect was used for Block 4 (SA3). There were two self-aspect counterbalancing conditions: (1) SA1 home, SA2 friends, and SA3 school, (2) SA1 school, SA2 home, and SA3 friends.

Thus, the difference in RT between Blocks 1 and 2 represents how easily participants switch from a describe task to a recall task within a single self-aspect (baseline switch), whereas the difference in RT between Block 3 and Block 4 represents how easily participants switch from a describe task to a recall task across two different self-aspects (critical switch). This critical switch was our measure of interest, with relatively faster critical switching reflecting greater ease in changing between self-aspects while controlling for each participant’s general speed of switching between a describe and recall task.

At the beginning of the study, participants were introduced to the two different types of tasks and to the three different self-aspects they would think about while completing each trial. There was a self-paced rest period between each block, which displayed a single screen informing participants of the type of task and self-aspect for the next 15 trials.

Procedure
Participants were welcomed by the experimenter, who described the study and solicited their informed consent. They were asked to leave their cell phone in a storage box to avoid distractions during the study. Participants completed all tasks at a computer in a private room.

Participants completed the self-complexity task first, followed by the switching task, and then the ratings of self-aspect importance. All task instructions were delivered by computer, and participants could proceed through them at their own pace. Lastly, participants were
Debriefed and thanked. In Studies 1 and 2, all of the research was conducted in accordance with the American Psychological Association’s ethical guidelines.

**Results**

**Counterbalancing of self-aspects**

Before testing our hypotheses, we examined whether the particular order of self-aspects (i.e., counterbalancing condition) was related to critical switch speed. To calculate critical switch speed, the mean RT for the 15 trials in Block 3 (SA2-describe) was subtracted from the mean RT for the 15 trials in Block 4 (SA3-recall). Participants whose critical switch was from friends to school were significantly slower to make the switch to the new self-aspect ($M = 2371.05, SD = 2425.06$) than those who switched from home to friends ($M = -457.69, SD = 2098.23$), $t(41) = 3.55, p = .001, d = 1.25, 95\%$ CIs $[-4436.70, -1220.78]$. We did not expect this counterbalancing effect, and we suspected it was caused by overall differences in the importance of these three self-aspects to participants. Indeed, participants rated their school self-aspect ($M = 4.23, SD = 1.70$) as less important than both their home self-aspect ($M = 5.47, SD = 1.47; t(42) = 3.64, p = .001, d = .78, 95\%$ CIs $[-.55, 1.92]$) and their friends self-aspect ($M = 5.81, SD = 1.05; t(42) = 5.84, p < .001, d = 1.12, 95\%$ CIs $[-2.13, -1.04]$). The latter two self-aspects did not differ in importance, $t(42) = 1.29, p = .204, d = .27, 95\%$ CIs $[-.89, .20]$.

This meant that participants in the friend-school counterbalancing condition were switching from a more important to a less important self-aspect, whereas those in the home-friends condition were switching between two relatively important self-aspects. We had already planned to include self-aspect importance as a direct predictor of switching ability in our main analysis, but we did not include counterbalancing condition as a variable because its variance can be explained by differences in self-aspect importance.

**Ease of switching between self-aspects**

We used multiple regression analyses to test our hypotheses that features of self-concepts might account for self-aspect switching ability. Critical switch speed was the criterion variable, with greater scores (i.e., slower speed) indicating relatively greater difficulty switching between two self-aspects. Descriptive statistics and bivariate correlations for the variables in the regression are displayed in Table 1.

The first predictor in the regression model was participants’ baseline switch speed (computed by subtracting SA1-describe from SA1-recall), which enabled us to examine participants’ ability to switch between two self-aspects while controlling for their baseline

---

**Table 1. Descriptive statistics and bivariate correlations in Study 1.**

<table>
<thead>
<tr>
<th></th>
<th>Imp</th>
<th>NSA</th>
<th>OLS</th>
<th>$H$</th>
<th>CritSw</th>
<th>BaseSw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.12</td>
<td>4.02</td>
<td>.21</td>
<td>2.07</td>
<td>1581.63</td>
<td>1359.52</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>1.95</td>
<td>1.86</td>
<td>.19</td>
<td>.86</td>
<td>2646.12</td>
<td>1976.81</td>
</tr>
<tr>
<td>Baseline switch (BaseSw)</td>
<td>.05</td>
<td>.10</td>
<td>.17</td>
<td>.02</td>
<td>.19</td>
<td>-</td>
</tr>
<tr>
<td>Critical switch (CritSw)</td>
<td>.51**</td>
<td>.25</td>
<td>.16</td>
<td>.31*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Scott’s H (H)</td>
<td>.27†</td>
<td>.86**</td>
<td>.25</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Overlap (OL)</td>
<td>.17</td>
<td>.09</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>N self-aspects (NSA)</td>
<td>.17</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Relative importance of SA2 and SA3 (Imp)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

$p < .09; *p < .05; **p < .01.$
task-switching ability. The remaining predictors were three features, both local and global, of the self-concept: The relative importance of SA2 (which participants switched out of) compared to SA3 (which participants switched into), number of self-aspects, and overlap. The relative importance variable is a local feature of the self-concept, calculated by subtracting SA3 importance from SA2 importance. Number of self-aspects and attribute overlap ($OL$) are global features of the self-concept. All predictor variables were centered.

Baseline switch did not significantly predict critical switch, $b = .19$ (95% CIs $[-.18, .57])$, $\beta = .15$, $t(38) = 1.06, p = .298$. The relative importance of SA2 and SA3 was a significant predictor, $b = 635.75$ (95% CIs $[256.70, 1014.80])$, $\beta = .47$, $t(38) = 3.40, p = .002$, such that people were slower to switch out of a more important self-aspect and into a less important one. Neither number of self-aspects, $b = 216.83$ (95% CIs $[-179.28, 612.93])$, $\beta = .15$, $t(38) = 1.11, p = .275$, nor self-aspect overlap, $b = 586.83$ (95% CIs $[-3288.23, 4461.90])$, $\beta = .04$, $t(38) = .31, p = .761$, predicted critical switch.

**Discussion**

We compared local and global features of the self-concept as predictors of the ease with which people switch between two self-aspects. The only significant predictor of switching speed was the relative importance of the two self-aspects participants switched between. Specifically, participants activated a new self-aspect relatively more quickly if it was more important than the one they were leaving (i.e., their previously activated self-aspect). Self-aspect importance is a local feature of the self-concept, meaning it is the specific subregion of one’s self-concept involved in the switch. In contrast, self-complexity (i.e., global self-concept structure) did not predict switch speed.

The findings of Study 1 showed that local features of the self-concept accounted for differences in switching ability better than did global features. Because Study 1 represented a first attempt to assess the ease with which people switch between two self-aspects, we conducted Study 2 to establish the reliability of these findings. Although Study 2 had an identical design, we modified the switching task to make it easier for participants to follow. In addition, although it did not provide an interpretational confound, only having two self-aspect counterbalancing conditions was less than ideal, and therefore, we used six counterbalancing conditions (i.e., every possible combination of self-aspect switching) in Study 2.

**Study 2**

**Overview**

Study 2 used a slightly modified measure of self-aspect switching. In the original measure, participants pressed the spacebar after making a describe or a recall decision in their head. Because some participants struggled with these instructions (e.g., three were removed for explicitly reporting confusion), we made the task more straightforward in Study 2. Instead of making a decision in their head and hitting the spacebar when they finished, participants immediately hit one of two response keys to make a yes or no decision. Moreover, we obtained a larger sample in Study 2 to have a more sufficiently powered experiment.
Method

Participants
Participants were 83 students (65 women; $M_{\text{age}} = 19.25, SD_{\text{age}} = 2.01$) at Arcadia University who received credit toward a course research requirement in exchange for participation. No participants’ data were excluded from analyses. The design was entirely within-subjects except for the counterbalancing of self-aspect order. Unlike Study 1, Study 2 had complete counterbalancing (a total of six order conditions). We determined in advance to aim for 80–90 participants. A power analysis (Soper, 2015) indicated a sample size of at least 64 would be needed to detect an effect, given Study 1’s observed power of .96 for the full regression model and $R^2 = .25$ for the relative self-aspect importance variable. At the beginning of the week in which it looked like we would reach our recruitment goal, we decided to end data collection when the week ended.

Materials
Self-aspect switching task. The four-block structure of the switching task was unchanged from Study 1. Blocks 1 and 2 used the same self-aspect and Block 3 and 4 each had a new self-aspect. There were 15 trials within each block. However, this time participants pressed one of two keys to report a yes or no decision for each trial. As in Study 1, Blocks 1 and 3 were a semantic judgment about the self. Participants were asked, “Are you [trait] [self-aspect]?” For example, one trial might show, “Are you quiet at HOME?” or “Are you energetic in SCHOOL?” Likewise, Blocks 2 and 4 involved an episodic judgment about the self. Participants were asked, “Can you think of a time you [behavior] [self-aspect]?” For example, one trial might read, “Can you think of a time you didn’t do something you said you would with FRIENDS?” or “Can you think of a time you thought of a solution on your own at HOME?”

The question stem always appeared at the top of the screen, the trait or behavior appeared in the middle, and the self-aspect at the bottom. Within each block of 15 trials, only the trait or behavior in the middle changed between trials. Participants were instructed to press the left CTRL key to respond “yes” and the right CTRL key to respond “no.” The keys were labeled with the words “Yes” and “No” as reminders.

The 30 traits used in Blocks 1 and 3 came from the same 60 trait list used in Study 1, and Blocks 2 and 4 contained behavioral representations of the remaining 30 traits from that list (e.g., “snapped at someone for no good reason” was a behavior that replaced “irritable”). The same traits and behaviors were used for each block, but self-aspect order was completely counterbalanced such that each self-aspect appeared with each set of traits and behaviors across participants.

Procedure
The procedure was identical to Study 1. Participants began by completing the self-complexity task, followed by the switching task, and ending with the ratings of self-aspect importance. Participants were thanked and debriefed before leaving the laboratory.

Results and discussion
Counterbalancing of self-aspects
As in Study 1, we first examined whether the particular order of self-aspects (i.e., counterbalancing condition) influenced critical switch speed. Critical switch speed was calculated by
important self-aspect. In other words, relatively important self-aspects are “sticky” in the
to activate that self-aspect more quickly and were slower when switching from it to a less
switching occurred. When a particular self-aspect was especially important, people appeared
the two self-aspects a person switches between predicted the ease with which self-aspect

cally, the relative importance of

Across two studies, we assessed individual di-
ff

cf

Ease of switching between self-aspects
As in Study 1, we regressed critical switch onto baseline switch (i.e., mean RT for SA1-trait sub-
tracted from mean RT for SA1-behavior), the relative importance of SA2 and SA3, number
self-aspects, and self-aspect overlap. All predictors were centered. (See Table 2 for descriptive
statistics and bivariate correlations.) Baseline switch significantly predicted critical switch,

Ease of switching between self-aspects
As in Study 1, we regressed critical switch onto baseline switch (i.e., mean RT for SA1-trait sub-
tracted from mean RT for SA1-behavior), the relative importance of SA2 and SA3, number
self-aspects, and self-aspect overlap. All predictors were centered. (See Table 2 for descriptive
statistics and bivariate correlations.) Baseline switch significantly predicted critical switch,

General discussion
Across two studies, we assessed individual differences in the speed, or ease, with which peo-
ple switched between two self-aspects and found that local features of the self-concept were
a reliable and powerful predictor of switching speed. Specifically, the relative importance of
the two self-aspects a person switches between predicted the ease with which self-aspect
switching occurred. When a particular self-aspect was especially important, people appeared
to activate that self-aspect more quickly and were slower when switching from it to a less
important self-aspect. In other words, relatively important self-aspects are “sticky” in the

Table 2. Descriptive statistics and bivariate correlations in Study 2.

<table>
<thead>
<tr>
<th></th>
<th>Valence</th>
<th>Import</th>
<th>NSA</th>
<th>OL</th>
<th>H</th>
<th>CritSw</th>
<th>BaseSw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>−.08</td>
<td>−.08</td>
<td>3.96</td>
<td>.22</td>
<td>2.26</td>
<td>1.26088</td>
<td>1.24243</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>1.19</td>
<td>1.95</td>
<td>2.33</td>
<td>.15</td>
<td>1.04</td>
<td>936.52</td>
<td>1086.71</td>
</tr>
<tr>
<td>Baseline switch (BaseSw)</td>
<td>−.18</td>
<td>.09</td>
<td>−.08</td>
<td>−.03</td>
<td>−.07</td>
<td>.58**</td>
<td>−</td>
</tr>
<tr>
<td>Critical switch (CritSw)</td>
<td>−.20†</td>
<td>.29**</td>
<td>−.02</td>
<td>−.25*</td>
<td>−.09</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Scott’s H (H)</td>
<td>.17</td>
<td>−.03</td>
<td>.89**</td>
<td>.45**</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Overlap (OL)</td>
<td>.06</td>
<td>−.20†</td>
<td>.22*</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>N self-aspects (NSA)</td>
<td>.17</td>
<td>−.03</td>
<td>−</td>
<td></td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Relative importance of SA2 and SA3 (Import)</td>
<td>−.16</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Relative positivity of SA2 and SA3 (Valence)</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
</tbody>
</table>

†p < .09; *p < .05; **p < .01.

subtracting mean RT for the 15 trials in Block 3 (SA2-trait) from the mean RT for the 15 trials in
Block 4 (SA3-behavior). There was no effect of counterbalancing condition on switch speed, 
F(5, 77) = .87, p = .504. However, when comparing participants’ ratings of self-aspect
importance, the relative importance of the three self-aspects was in the same direction as Study
1. Specifically, participants rated their school self-aspect (M = 4.78, SD = 1.51) as marginally
less important than their home self-aspect (M = 5.20, SD = 1.59; t(82) = 1.80, p = .076, d = .20, 
95% CIs [−.05, .89]) and significantly less important than their friend self-aspect (M = 5.61, 
SD = 1.21; t(82) = 4.78, p < .001, d = .52, 95% CIs [−1.18, −.49]). Their friend self-aspect was
marginally more important than their home self-aspect, t(82) = 1.81, p = .075, d = .20, 95% 
CIs [−.86, .04].

Ease of switching between self-aspects
As in Study 1, we regressed critical switch onto baseline switch (i.e., mean RT for SA1-trait sub-
tracted from mean RT for SA1-behavior), the relative importance of SA2 and SA3, number
self-aspects, and self-aspect overlap. All predictors were centered. (See Table 2 for descriptive
statistics and bivariate correlations.) Baseline switch significantly predicted critical switch, 
b = .49 (95% CIs [.34, .64]), β = .57, t(78) = 6.65, p < .001, with people completing the critical
switch more quickly if they were also faster to make the baseline switch. Replicating Study
1, the relative importance of SA2 and SA3 was also a significant predictor, b = 95.84 (95% CIs 
[12.69, 178.99]), β = .20, t(78) = 2.30, p = .024, such that people were slower when switching
from a more important self-aspect to a less important self-aspect. Also replicating Study 1, 
number of self-aspects did not predict critical switch, b = 33.83 (95% CIs [−35.84, 103.50]), 
β = .08, t(78) = .97, p = .337. Lastly, self-aspect overlap was a significant predictor, b = −1370.03 
(95% CIs [−2503.52, −236.54]), β = −.21, t(78) = −2.41, p = .018, with people switching more
quickly if they had greater interconnectedness across their self-aspects overall.

General discussion
Across two studies, we assessed individual differences in the speed, or ease, with which peo-
ple switched between two self-aspects and found that local features of the self-concept were
a reliable and powerful predictor of switching speed. Specifically, the relative importance of
the two self-aspects a person switches between predicted the ease with which self-aspect
switching occurred. When a particular self-aspect was especially important, people appeared
to activate that self-aspect more quickly and were slower when switching from it to a less
important self-aspect. In other words, relatively important self-aspects are “sticky” in the
sense that they gain accessibility more easily but also do not yield easily when one shifts attention toward a less important self-aspect. These more important self-aspects possess high activation potential (Bruner, 1957), but this does not mean they are chronically activated (cf., Bargh, Lombardi, & Higgins, 1988; but see Brown & McConnell, 2009a, for limitations on chronicity) or that they trigger intrusive, unwanted thoughts (e.g., Wegner, 1994). Chronic traits (i.e., attributes such as “honest”) are highly accessible and more likely to be integrated into multiple self-aspects, whereas important self-aspects represent self-knowledge that is domain specific rather than domain independent.

We also examined if a more global representation of self-concept structure, self-complexity (i.e., NSA and self-aspect overlap), predicted switching ability. NSA did not predict critical switch in either study, but Study 2 found that people with greater interconnectedness across their entire self-concept (i.e., greater overlap) were faster to switch between two specific self-aspects. Study 2 was better powered than Study 1 and the switching task required participants to make a decisive Yes/No response, which may have increased the sensitivity of the measures in Study 2. However, because self-aspect overlap was significant in only one study, these results suggest that although global features of self-concepts may contribute somewhat to how well people transition between different active self-aspects, local features (i.e., characteristics of the specific self-aspects) are the most consistent and reliable predictors of self-aspect switching ability. As with many social psychological phenomena, greater specificity of measures tends to yield greater predictive utility (Abelson, 1982; Ajzen & Fishbein, 1975), and this is certainly true for the self-concept as well (e.g., Pelham & Swann, 1989; Marsh, 1992; McConnell, Rydell, et al., 2009).

Although these results are consistent with broader theories of self-concept organization (e.g., Linville, 1985; McConnell, 2011), our study is the first to document individual differences in the facility with which people transition among different self-aspects. It is also the first to demonstrate that self-concept structural variables can account for the relative ease with which people switch between two self-aspects. This research underscores the importance of studying the self-concept at a local level (e.g., McConnell, Rydell, et al., 2009) by demonstrating that self-aspect-specific parameters have considerable explanatory power. Not all self-aspects are equally important, and those that are more important to the individual are likely to have greater baseline accessibility (McConnell, 2011), making them easier to activate and harder to deactivate than other self-aspects.

It is valuable to identify factors that facilitate efficient transitions between self-aspects because there are repercussions to difficult self-aspect switches. For example, organizational psychology research shows that individual differences in the self-reported ease with which people transition between their work and home roles predicts mental health and work productivity (e.g., Sanz-Vergel et al., 2011). Thus, an individual who cannot stop thinking about work when at home experiences difficulty “detaching” from work, which in turn predicts greater stress and poorer well-being (e.g., Sonnentag, 2012). The current work not only documents this phenomenon directly, but it leverages our understanding of self-concepts to index the degree of detachment difficulty. While various situational factors, such as sustained accessibility of unfinished goals (e.g., Marsh, Hicks, & Bink, 1998; Zeigarnik, 1927), can make detaching from work challenging (Smit, 2015), our findings suggest that local features of one’s self-concept (e.g., self-aspect importance) may account for the difficulty in disengaging that some people, but not others, experience. Thus, in the current work, we
identify an individual difference with a process-derived basis that can predict for whom shifting between self-aspects may be more or less challenging.

This research also highlights the value of viewing the self as a collection of self-aspects (e.g., McConnell, 2011). Changes in self-relevant phenomena, such as chronic accessibility of traits (Brown & McConnell, 2009a) and stereotype threat (e.g., Rydell & Boucher, 2010; Shih et al., 1999), across situations can be explained by viewing self-concepts as organized into context-dependent self-aspects and associated attributes. Active self-aspects are lenses through which people see the world (e.g., Garczynski & Brown, 2013), highlighting the importance of understanding how people switch from one self-aspect to another. The task-switching paradigm used in the current research advances our ability to study active self-aspects. By measuring response latency for retrieving episodic and semantic self-knowledge from memory (e.g., Klein et al., 1997), we can precisely index the relative accessibility of specific self-aspects.

**Limitations and alternative explanations**

One potential limitation of our methodology is that we activated the same three identities (i.e., home, school, and friends) in participants rather than using the idiosyncratic self-aspects participants generated during the self-complexity task. Past research examining self-aspect activation has used both participant-generated self-aspects (e.g., Brown & McConnell, 2009a; McConnell, Rydell, et al., 2009) and self-aspects that participants are assumed to have based on their demographic characteristics or group memberships (e.g., student self-aspects in undergraduate students, Linville, 1985; school and home self-aspects in undergraduate students, Garczynski & Brown, 2013; student and Greek self-aspects in fraternity and sorority members, Hugenberg & Bodenhausen, 2004; parent and employee self-aspects among working parents; Kamat & Gardner, 2014). Although using participant-generated self-aspects can provide greater sensitivity, conducting such research can be challenging (e.g., idiosyncratic stimuli introduce more complexity, and self-selected stimuli can create potential confounds). However, “assumed self-aspects” commonly held by undergraduate participants have been activated by researchers from many laboratories (as the above list attests), and the findings from such studies are consistent with work using participant-generated items. For this reason, although using assumed self-aspects may have some limits, it is a reliable and established method.

In addition, although there was considerable convergence in the results of Studies 1 and 2, a notable inconsistency is that baseline switch speed significantly predicted critical switch speed only in Study 2. In our task-switching paradigm, a self-aspect switch is inherently a task switch as well. Therefore, we controlled for participants’ baseline ability to switch between two tasks. We expected baseline switch speed to significantly predict critical switch speed in both studies, so the nonsignificant effect in Study 1 was surprising. The inconsistency might be explained by differences in the task between the two studies. Study 1 participants made the decision in their heads and hit the spacebar afterward, whereas Study 2 required participants to make a firm Yes/No response. By requiring a specific response, we may have constrained participants’ behavior to a greater degree, thus increasing similarity in the baseline switch and critical switch. Study 2 also had nearly twice as many participants as Study 1, and greater power may have contributed to the significant relation between baseline and critical switch speed in that study.
Participants rated the importance of each self-aspect at the end of the study, and an alternative explanation for the current findings may be that participants’ inferred importance from how quickly they retrieved memories associated with a self-aspect. That is, participants may have recognized they were slower on trials for certain self-aspects and therefore concluded those self-aspects were less important. While we cannot eliminate this possibility entirely, it seems unlikely participants modified the importance of their own self-aspects when (1) they probably already possessed a sense of self-aspect importance, and (2) they would have had to reject both this preexisting perception as well as intuitive reasons for their speed on the switching tasks. From the participant’s perspective, the most obvious explanation for a slowdown between Blocks 2 and 3 is that they were adjusting to a new task (recall instead of describe), and they would not have the relevant comparisons that only can be revealed between-subjects. In addition, every trial contained a new trait or behavior, providing another appealing attribution for changes in speed. Because this alternative explanation requires three assumptions (i.e., conscious recognition of RT differences, rejecting preexisting perceptions of self-aspect importance, rejecting compelling external reasons for RT differences), it seems less parsimonious and therefore less plausible than our account.

A second alternative explanation is that important self-aspects are more positive than less important self-aspects, and participants are faster to activate and slower to inhibit positive self-aspects for hedonistic reasons. In other words, self-aspect importance may only predict self-aspect switching because it covaries with self-aspect valence. We did not directly measure the perceived positivity of participants’ self-aspects, but we can potentially infer their positivity by examining Study 2 participants’ Yes/No responses. To evaluate this alternative explanation, we calculated an index of self-aspect positivity by summing Yes responses to positive traits and behaviors with No responses to negative traits and behaviors and then dividing this sum by the total number of trials for that self-aspect. For each of the three target self-aspects, self-aspect positivity was correlated with self-aspect importance ($r > .25, ps < .02$). The relative positivity of the critical switch self-aspects (i.e., SA3 positivity minus SA2 positivity) was also marginally correlated with critical switch speed, $r(83) = -.20, p = .07$, such that participants switched faster when SA3 was more positive than SA2. However, when relative positivity was added to the multiple regression analysis, it did not predict critical switch speed, $b = -357.41$ (95% CIs $[-1210.52, 495.71]$), $\beta = -.07, t(77) = -.83, p = .407$, whereas relative importance remained a significant predictor, $b = 90.70$ (95% CIs $[6.47, 174.93]$), $\beta = .19, t(77) = 2.14, p = .035$. These supplemental analyses suggest that although important self-aspects are more positive, importance uniquely accounts for self-aspect switching speed, and importance eliminates the ability of self-aspect valence to predict self-aspect switching speed. Self-aspect valence and importance may covary along with other characteristics of self-aspects, such as their certainty, clarity, and length of existence. Each of these qualities may potentially contribute to their accessibility and thus influence the ease of switching in or out of them. However, self-aspect importance may be a common thread that unites these other dimensions, and we suspect it will continue to account for a substantial amount of variance in self-aspect accessibility even when controlling for other self-aspect characteristics.

**Implications and future directions**

It is compelling to see that local features of people’s self-concepts (i.e., self-aspect importance) predict their ability to transition from one active self-aspect to another. However,
the value of this work goes beyond expanding our understanding of the self-concept. Specifically, we believe the current findings offer insight into improving people’s ability to transition between important roles in their lives. Now that switching ability can be indexed, researchers can design and evaluate the efficacy of interventions to improve self-aspect switching. Although our focus in the current work was on speed of switching as a measure of activation, we believe there are costs associated with “sticky self-aspects” beyond transition time. If self-aspects possess conflicting content (e.g., a student transitioning from party-self to studious-self), perhaps the person will suffer from worse performance or have difficulty vanquishing thoughts related to another self-aspect (e.g., Renaud & McConnell, 2002; Wegner, 1994). For example, college students experiencing either relationship conflict or relationship bliss may need to inhibit their relationship self-aspect to stay focused on classwork, yet inhibiting this self-aspect may be challenging given its current importance to the individual. Likewise, professors for whom research is more important than teaching may find themselves preoccupied with research concerns when trying to prepare for class.

At the same time, self-aspect intransigence may have benefits in other circumstances. Perhaps CEOs and supervisors will have greater perspective-taking about the impact of work practices on employees’ lives at home (e.g., child care policies, healthcare program choices) if their own home self-aspects remain highly accessible. Overall, this research may benefit industrial–organizational psychologists to the extent it can be used to develop interventions for employees who experience difficulty detaching from work while at home or from home while at work (e.g., Sonnentag, 2012). Relatedly, the current work suggests there may be interesting problems in contexts that involve the co-activation of roles with conflicting goals and behaviors (e.g., people who work from home, people who attempt to juggle parenting with their social lives).

Another direction for future research is to identify dispositional factors that influence the ease of self-aspect switching. For example, people who are high in self-monitoring regularly adapt themselves to fit the prescriptions of the current situation (Snyder, 1974), and thus, they may become especially facile at switching between self-aspects. Trait self-control may also be an important factor. Switching self-aspects requires inhibiting one’s current self-aspect, but people are not equally successful at inhibiting competing thoughts and impulses (e.g., de Ridder, Lensvelt-Mulders, Finkenauer, Stok, & Baumeister, 2012).

On the other hand, inhibition is not always an effortful process. Commitment to a current goal can produce automatic inhibition of alternative goals (Shah, Friedman, & Kruglanski, 2002), and this may be relevant to self-aspect switching as well. The strong pull of an important self-aspect, especially in goal contexts, might automatically inhibit other self-aspects. Concepts related to inactive self-aspects are already inhibited if they are incompatible with one’s current self-aspect (e.g., Hugenberg & Bodenhausen, 2004), and it seems likely that the activation of important self-aspects produces automatic inhibition of other self-aspects.

A related question is whether working memory capacity (WMC) influences one’s ability to switch between self-aspects. People with greater WMC can hold more items in conscious attention (Engle & Kane, 2004), so it seems possible that they might sustain simultaneous accessibility of two self-aspects once those self-aspects are active. In addition, people with greater WMC are also better at resisting distraction (Engle & Kane, 2004). Like inhibitory ability, differences in WMC might predict self-aspect switching ability when conflict is present. However, we suspect that the importance of the self-aspects and the degree of self-aspect conflict will account for more variation in switching speed than individual differences like WMC.
Conclusion

The variegated nature of the self allows for both compartmentalization and integration of identities (e.g., Linville, 1985; Donahue et al., 1993; Showers, 2002). Self-concepts develop uniquely in each person, with consequences for well-being (McConnell, Strain, et al., 2009), mental regulation (e.g., Renaud & McConnell, 2002), and behavior (Brown & McConnell, 2009b). The current research found that relative self-aspect importance predicts the ease of switching between self-aspects, highlighting the value of the self-concept in understanding context-specific behavior. These self-aspects often represent important contexts (e.g., social roles and relationships) where effective performance is essential. The ability to shift from one self-aspect to another has implications for well-being (Sonntag, 2012), making it important to develop a fuller understanding of how these shifts occur and who experiences greater difficulty in making these identity transitions.

Note

1. Analyses using Scott’s $H$ as a measure self-complexity (instead of NSA and OL) were also conducted. In Study 1, when critical switch speed was regressed onto baseline switch and $H$, $H$ predicted critical switch speed, $\beta = .30, t(40) = 2.03, p = .049$, such that people with lower self-complexity were faster to switch between self-aspects. However, when the relative importance between SA2 and SA3 were simultaneously entered in the model, $H$ was no longer a significant predictor, $p = .195$. In Study 2, $H$ did not significantly predict critical switch speed regardless of other variables in the model. Therefore, across both studies, the local measure (self-aspect importance) remained the only consistent predictor of critical switch speed even when using a different global measure ($H$).

Acknowledgments

The authors thank Aashika Suseendran, Yevgeniy Olkhov, Dave Castellano, and Hannah Kraynak for their assistance with data collection.

Disclosure statement

No potential conflict of interest was reported by the authors.

References


