American Psychologist
2017, Vol. 72, No. 4, 374–385

0003-066X/17/$12.00 http://dx.doi.org/10.1037/a0040431

Stepping Forward Together: Could Walking Facilitate Interpersonal Conflict Resolution?

Christine E. Webb, Maya Rossignac-Milon, and E. Tory Higgins
Columbia University

Walking has myriad benefits for the mind, most of which have traditionally been explored and explained at the individual level of analysis. Much less empirical work has examined how walking with a partner might benefit social processes. One such process is conflict resolution—a field of psychology in which movement is inherent not only in recent theory and research, but also in colloquial language (e.g., "moving on"). In this article, we unify work from various fields pointing to the idea that walking together can facilitate both the intra- and interpersonal pathways to conflict resolution. Intrapersonally, walking supports various psychological mechanisms for reconciliation, including creativity, locomotion motivation, and embodied notions of forward progress. Both alone and in combination with its effects on mood and stress, walking can encourage individual mindsets conducive to resolving conflict (e.g., divergent thinking). Interpersonally, walking can allow partners to reap the cognitive, affective, and behavioral advantages of synchronous movement, such as increased positive rapport, empathy, and prosociality. Walking partners naturally adopt cooperative (as opposed to competitive) postural stances, experience shared attention, and can benefit from discussions in novel environments. Overall, despite its prevalence in conflict resolution theory, little is known about how movement influences conflict resolution practice. Such knowledge has direct implications for a range of psychological questions and approaches within negotiation and alternative mediation techniques, clinical settings, and the study of close relationships.

Keywords: regulatory mode theory, locomotion, conflict resolution, embodiment, synchrony

Imagine a conflict with a close social partner over an enduring and particularly divisive issue. One evening, as the disagreement ensues, your partner and you go for a walk together. Discussions on the matter typically unfold under other circumstances—over dinner at a restaurant, at home as you each go about your regular business, even through phone or e-mail conversations. But on this occasion, you find yourselves walking side-by-side as you rehash this difficult topic. You are practically unaware that as you walk together, you maintain the same, steady pace, a parallel rhythm of movement and time. Your minds are also in motion and working in creative ways. Every so often, a scene or an event will direct your thoughts elsewhere, but all the while, your attention and experience are shared. And as you discuss the conflict areas that habitually create the most strain and misunderstanding, increasingly, the ideas are flowing and progressing in new and constructive ways. Your synchronous steps not only seem to coordinate your conversation, but somehow also your thoughts and feelings. On some level, you are better able to integrate and accept your partner's perspective, and vice versa. You might not resolve the conflict, but you certainly feel better, more connected. You are both literally and figuratively stepping forward together.

Many of us have had such an experience, which introduces the theme of this article—*walking together as a potential strategy for resolving interpersonal conflict*. As commonplace as the experience might be, no research has examined this intriguing relation. And while a great deal is known about the positive effects of walking on the individual, much less is known about how it could benefit interpersonal processes, and conflict discussions in particular. Could it be that the act of walking and talking together facilitates more effective resolutions and negotiations? Is it possible that when it comes to issues that are particularly intractable, walking jointly opens the door to more agreement? By physically moving in unison, are people creating the potential for psychological change and coordination?

In this article, we explore these questions by examining possible mechanisms through which walking could serve as a vehicle for conflict resolution. Our aim is not to pinpoint

Christine E. Webb, Maya Rossignac-Milon, and E. Tory Higgins, Department of Psychology, Columbia University.

Correspondence concerning this article should be addressed to Christine E. Webb, Department of Psychology, Columbia University, 406 Schermerhorn Hall, 1190 Amsterdam Avenue, New York, NY 10027. E-mail: cw2472@columbia.edu

Christine E. Webb

the precise mechanism(s) responsible, but to summarize theory and empirical research that point to some convincing answers. In highlighting these potential pathways, we hope that our discussion will stimulate further basic and applied work on the social psychology of walking. Future findings could suggest practical, effective, and perhaps even enjoyable interventions appropriate for a range of professions (e.g., conflict resolution practitioners and clinical psychologists), social institutions, and interpersonal interactions. The benefits of walking together provide a low-cost strategy that could be integrated not just within mediation and therapy techniques, but in everyday close relationships.

A Philosophy Revisited

> "All truly great thoughts are conceived by walking."
> —Friedrich Nietzsche

The notion that walking is beneficial for the mind has ancient philosophical roots. The Peripatetic school of Aristotle and his followers dates back to 335 BC, and is so named because of Aristotle's penchant for teaching while walking (peripatetic is a transliteration of the ancient Greek word *peripatêtikos*, which means "of walking" or "given to walking about"). The work of Enlightenment and Transcendentalist intellectuals abounds with praise for the act of walking. Jean-Jacques Rousseau's predication that "my mind only works with my legs" (Rousseau, 1782, *Confessions*) is epitomized in essay collections like *Reveries of the Solitary Walker* (1973). Ralph Waldo Emerson characterized walking as "gymnastics for the mind," while for Henry David Thoreau, it became a central metaphor of his work (e.g., *Walking*). Thomas Jefferson is said to have habitually walked to clear his thoughts, while Ernest Hemingway wrote in *A Moveable Feast* that walking was a way of developing his best ideas while mulling a problem. Even Charles Darwin is said to have created a "thinking path" around his property to contemplate evolutionary theory.

Captured in the ancient Latin proverb *solvitur ambulando*, or "it is solved by walking," and in more contemporary phrases such as "take a walk to clear one's head," these examples provide ample anecdotal evidence that walking aids thought. If the benefits of walking indeed extend from intra- to interindividual processes,[1] is it possible that Nietzche's famous assertion (valuable thoughts originate in walking) could also apply to the dynamic, dyadic process of conflict resolution?

Movement and Conflict Resolution: An Inherent Link

> If we consider that the person at any given moment has the possibility of locomoting in the direction of many different regions, then any particular action is the resultant of some implicit resolution of conflict. (George Levinger, 1957)

Movement permeates the language and literature of conflict resolution. Theory and research have recognized the important and even inherent relation between movement and resolving conflict. The legacy of Kurt Lewin is particularly influential in this regard. Lewin defined conflict as the opposition of field forces with approximately equal strength (Lewin, 1936). Field theory became a general framework that influenced the theorizing and empirical work of many conflict scholars after Lewin, notably that of Morton Deutsch, perhaps best known for his work on constructive and destructive approaches to conflict resolution (Deutsch, 1973). By introducing such concepts as "locomotion" and "driving forces," Lewin (1951) was one of the first to recognize that movement is necessary to resolve behavioral and psychological conflict. This idea continues to guide contemporary conflict resolution models (see Coleman, Kugler, Bui-Wrzosinska, Nowak, & Vallacher, 2012), such as dynamical systems approaches (e.g., Vallacher, Coleman, Nowak, & Bui-Wrzosinska, 2010) and the application of Lewin's formula for organizational change—unfreezing, movement, refreezing—to conflict situations (e.g., Marcus, 2014). Though Lewin himself rarely distinguished between intrapersonal conflict and interpersonal (or social) conflict (see Levinger, 1957), his ideas are among the most fundamental to the field of social conflict resolution.

There is an equally intriguing relation between movement and the *language* of conflict resolution. When one surmounts conflict, one is said to *move on* or *move forward*.

[1] These notions are explored in recent TED talks by Nilofer Merchant (2013; *Got a Meeting? Take a Walk*) and Robert Ury (2010; *The Walk From "No" to "Yes"*).

Maya Rossignac-Milon
Photo by Pablo Frisk

Alternatively, conflicting parties might reach an *impasse* or *standstill*, leading to exasperations that *this is going nowhere.* Consider also what it means to *stand one's ground* versus *meet halfway*, to *get past* versus *become stuck* in the current conflict. Further examples abound (see Table 1) and highlight the intrinsic role of movement even in colloquial references to conflict resolution. Drawing on conceptual metaphor theory (Landau, Meier, & Keefer, 2010), we propose that the use of physical movement as a metaphor for conflict resolution indicates the immutable similarities between the two notions. In terms of formal definitions, social psychologists also commonly reference movement when describing important conflict resolution constructs. For example, McCullough, Worthington, and Rachal's (1997) well-cited definition of forgiveness describes it as the set of *motivational changes* whereby an individual becomes decreasingly motivated by retaliation and estrangement, and increasingly motivated by conciliation and goodwill toward the offender. Similarly, de Waal (2000) as well as Webb, Franks, Romero, Higgins, and de Waal (2014) have emphasized that reconciliation necessitates a *motivational shift* from a state of hostility and fear to a more positive inclination. However, research and literature explicitly addressing the link between conflict resolution and a motivation for movement are surprisingly underdeveloped, thus highlighting the need for further theoretical and empirical advances.

Recent research on regulatory mode theory (RMT; Higgins, Kruglanski, & Pierro, 2003; Kruglanski et al., 2000) and interpersonal conflict (Webb, 2015) has begun to address these needs. RMT describes a basic motivation for movement as *locomotion* (Higgins, 2012). More specifically, the locomotion system is concerned with effecting and managing change—the initiation and maintenance of smooth movement from state-to-state. Consistent with Lewin's (1951) original conceptualization, locomotion is represented by changes in *any* region in the life space—that is, between behavioral and/or psychological states. As such, locomotion regards movement and the ability to effect change as an end in itself. Importantly, RMT posits that individuals can vary chronically and momentarily in the strength of their locomotion motivation. Preliminary evidence suggests that this variation is predictive of people's conflict resolution motivations (Webb, 2015). For example, people with higher trait-level locomotion are more likely to report resolving their own interpersonal conflicts, as well as hypothetical conflict scenarios. When asked specifically to recall unresolved disputes with others, high locomotors are more likely to endorse items reflecting a readiness to resolve conflict (based on Zartman's, 2000, "ripeness" theory).[2] Further, when participants are experimentally induced into a momentary state of locomotion (Avnet & Higgins, 2003), they report higher reconciliatory motives. Thus, it appears that locomotion, both as a stable trait and a momentary state, can positively influence the motivation to resolve conflict. As a well-known theory of social and motivational psychology, RMT has been applied across a variety of research domains (see Higgins, 2012, for a review), consistently revealing the locomotion system's concern with movement and change over stasis. The recent application to interpersonal conflict underscores the theory's potential for addressing the inherence of movement to conflict resolution processes.

In summary, the relation between movement and conflict resolution appears to be both deep-rooted and multifaceted, evident in compelling historical examples, formal to lay theories of conflict resolution, linguistic cues, and recent empirical research findings. As a motivation for movement and change between states, locomotion's ability to manifest itself both psychologically and behaviorally points to a new domain of inquiry. Could walking serve as an effective behavioral induction for locomotion motivation? In what other ways does the act of walking benefit the mind? How might these embodied and creative pathways be particularly conducive to resolving ongoing conflicts? This background provides the opening questions for the following section, where we explore the *intra*personal benefits of walking for conflict resolution. In the subsequent section, we turn to the *inter*personal benefits of walking. How might walking *together* further promote conflict resolution? Could falling into a coordinated rhythm of steps allow interaction partners

[2] Interestingly, Zartman (2000) conceptualizes conflicts as "ripe for resolution" when parties are engaged in a mutually hurting *stalemate*, further intimating why a basic motivation for *movement* might be both relevant and important.

E. Tory Higgins

to benefit from the affective, cognitive, and behavioral repercussions of synchrony and coordination, thereby facilitating joint movement toward a solution? How could the adoption of a cooperative, side-by-side stance during walking increase joint attention and the establishment of common ground and a shared reality? We propose that going for a walk could allow interaction partners to step forward together, both physically and psychologically.

Intrapersonal Benefits of Walking: Physical and Psychological Movement

> "When I stop I cease to think; my mind only works with my legs."
>
> —Jean-Jacques Rousseau

Embodied Movement

We know from embodied cognition research (see Niedenthal, Barsalou, Winkielman, Krauth-Gruber, & Ric, 2005, for a review) that the physically grounded language we use to describe mental states is often revelatory—our choice of words belie actual links between those specific physical and psychological states. This complements work in cognitive linguistics (Lakoff & Johnson, 1980; Landau et al., 2010), which has long suggested that conceptual metaphors are both based in and can achieve concrete physical realities. Metaphors used to describe conflict resolution should be no exception; terms like those listed in Table 1 make clear that conflict serves as a *barrier to movement*. In this sense, one could postulate that the act of moving, and moving *forward* no less, could facilitate the psychological movement necessary for conflict resolution.

Support for the embodied cognition perspective on movement comes from numerous studies, the most pertinent of which will be described here. In brief, because people move forward to obtain desired objects in the environment, there is a very literal connection between bodily cues of forward motion and desired end-states. Metaphoric language reflects this powerful association—having successes is often described as moving toward one's goals ("advancing"); in opposition, failures are often described as backward movement ("setbacks"). Landau, Oyserman, Keefer, and Smith (2014) found that imagining oneself on a forward path through college increased academic engagement, as measured through both intentions and effort. Natanzon and Ferguson (2012) confirmed that movement can influence motivated behavior in the absence of awareness: across two experiments, nonconsciously priming forward movement activated achievement motivation. Both of these studies demonstrate that embodied or metaphorical cues can trigger decisions, judgments, and goal-directed behavior.

Recent research has even examined the reverse relationship, testing the influence of goal-relevant behavior on physical movement. Robinson and Fetterman (2015), for instance, found that failure categorizations sped up backward movement, whereas success categorizations sped up forward movement. Miles, Nind, and Macrae (2010) were interested in whether mental time travel could also be represented in the sensorimotor systems that regulate human movement. They found that reflecting on the personal past or future led to backward and forward postural sway, respectively (note that we tend to think of the future as "in front" of and the past as "behind" us).[3] This close link between spatial and temporal representations has received additional empirical support (Sell & Kaschak, 2011), highlighting the bidirectional nature of embodiment effects—that is, cognition and affect influence motor behavior, but motor behavior also causally influences feelings and thoughts via body feedback.

Beyond movement direction (e.g., forward vs. backward), recent research has shown that movement *quality* is an important feature of such feedback. For example, Koch, Fuchs, & Summa (2014) found that *smooth* bodily motions (participants were instructed to move "as if floating or drifting") caused more positive affect and recall, whereas sharp motions ("as if pulling and pushing heavy objects") led to more negative affect and recall. The bidirectionality assumption is a critical point in our discussion because it emphasizes the significance that smooth motor movements like walking could have for memory, affect, attitudes, and

[3] It is noteworthy that the conception of the future as "in front" and the past as "behind" is not a cultural universal (see Núñez & Cooperrider, 2013). Here, it is also worth mentioning that high locomotors are generally more future oriented and avoid dwelling on the past (Kruglanski et al., 2016). We elaborate on both points in the General Discussion.

Table 1
The Language of Conflict Resolution

Resolution	Conflict	Compromise (or lack thereof)
Move on	Impasse	Meet halfway
Move forward	Standstill	Find common ground
Get past	Don't budge	Come to an agreement
Get over	Stand one's ground	Reach a consensus
Put behind	Stuck	Meet in the middle
Get somewhere	Go nowhere	Arrive at a solution
Get beyond	Stalled	Unyielding opposition
Take steps forward	Stalemate	We're just coming from different places

actions, and perhaps even for the locomotion motivation for smooth, uninterrupted movement. Given that directional movement can contribute to individuals' ideas about success and failure, progress and lack thereof, future and past, and so on, we postulate that walking forward could help people overcome the stasis that conflicts so often generate.

Creativity

In areas beyond embodiment research, prior studies have documented additional ways in which physical movement can influence cognitive processes. While the effects of exercise have received considerable attention (i.e., aerobic activities such as running and cycling; see Tomporowski, 2003 for a review), some studies have focused on milder activities such as walking (e.g., Netz, Tomer, Axelrad, Argov, & Inbar, 2007). By and large, this research demonstrates that physical activity can influence cognitive task performance in ways that should be beneficial to conflict resolution.

Conflict is generally thought to create a narrowing of vision, and this change in cognition is known to yield less integrative and creative thought. For example, Carnevale and Probst (1998) gave participants the expectation that they were going to enter a cooperative or a conflict interaction, and then had them perform a functional-fixedness task. Those who expected a conflict were less likely to "unfix" the concepts and see creative solutions. Researchers also found that expectancies and actual experiences of conflict (vs. cooperation) influenced performance on a categorization task. People in a conflict state tended to make more restricted (i.e., black-and-white) categorizations than did those who experienced a cooperative state. Much work has substantiated the claim that conflict creates more rigid patterns of thought. At the same time, conflict resolution researchers have also emphasized that creativity fosters mutually beneficial, integrative agreements (Carnevale, 2014), and cognitive flexibility lends itself to more productive negotiation outcomes (Pruitt & Lewis, 1975). Though conflicts can result in a "freezing" of cognitive schemas (Bar-Tal, Kruglanski, & Klar, 1989), constructive resolutions require people to see old things in new ways (Coleman & Deutsch, 2014). It is noteworthy that the very cognitive processes that conflicts restrict are also those that are important for dispute resolution. It is possible, then, that walking during conflicts could serve as a buffer against the detrimental consequences of conflict on creativity, thereby allowing more innovative resolutions.

Although not examining conflict itself, recent work by Oppezzo and Schwartz (2014) provides evidence that walking boosts creative ideation. Across three studies, researchers found that walking both indoors and outdoors significantly enhanced participants' performance on Guilford's alternative uses test. Importantly, Guilford's alternative uses test depends on cognitive flexibility and divergent thinking (in this task, people must generate alternate uses for common objects). Unlike the more global effects of physical activity described in prior work, researchers showed that improvements in performance did not extend to all areas of cognition; namely, performance did not improve on a convergent thinking task, which involved honing in on a single best answer. In their fourth study, Oppezzo and Schwartz (2014) found that participants were far more likely to generate novel, high-quality analogies when walking compared to sitting (100% of participants who walked outside generated at least one novel high-quality analogy compared to 50% of those seated inside; in the first three studies, 80–100% of participants were more creative walking than sitting). Across these studies, researchers determined that the creative solutions generated while walking were innovative and practical rather than irrelevant or far-fetched. That participants engaged in more divergent as opposed to convergent creative thinking is especially intriguing, given that the latter is typically thought of as critical to conflict resolution (see Hughes, 2009). In this sense, a cognitive approach taking multiple perspectives into account to reach any number of potential solutions (divergent thinking), rather than honing in on a single answer (convergent thinking), would have clear benefits for interpersonal conflict resolution (see also Coleman & Deutsch, 2014).

Walking and other forms of moderate activity have also been shown to increase cognitive control, ideational fluency, and the speed of concurrent cognition. Researchers

have further found that bouts of acute activity enhance people's ability not just to attend to relevant information, but to disregard irrelevant information (Tomporowski, 2003). When taken as a whole, the results of the empirical research now available suggest that executive functions facilitating problem-solving and goal-oriented action are enhanced both during and following periods of exercise performed at low or medium intensities (i.e., not fatigue-inducing). To the extent that walking with one's social partner has these properties, it seems likely that it could benefit cognitive functioning in ways that would translate beneficially to conflict resolution.

It should also be noted that there is substantial support for the notion that an acute bout of physical activity increases positive affect and lowers stress (see Biddle, Fox, & Boutcher, 2002 for a review), and that this may be especially true for rhythmic, mild to moderate intensity activities like walking (Ekkekakis, Hall, VanLanduyt, & Petruzzello, 2000). These short-term benefits counter conflict's harmful effects (i.e., negative mood states and increased stress), thus working in opposition to affective experiences that might stifle the resolution process. Positive affect has been shown to decrease the use of contentious tactics while increasing joint benefits in negotiation situations (Carnevale & Isen, 1986). Interestingly, positive mood is generally also thought to enhance cognitive flexibility and facilitate creative problem-solving (Ashby, Isen, & Turken, 1999). Furthermore, divergent thinking has been shown to lead to a more positive mood state, whereas convergent thinking has the opposite effect (Chermahini & Hommel, 2012). This suggests that positive affect and creativity might bolster each other's benefits, in turn suggesting how various mechanisms explored here could interact.

Discussion of Intrapersonal Benefits of Walking

Though an exhaustive review is beyond our scope, the above findings collectively indicate that walking could facilitate the embodied, creative, and positive thoughts that promote the resolution of interpersonal conflict. It is precisely this type of complex, integrative thinking that can lead to forgiveness (Thompson et al., 2005) and constructive conflict resolution, even over intractable issues (see Vallacher et al., 2010).

Intriguingly, walking also plays a role in effecting change—a *change-of-scene*. Even negotiators commonly advise parties to change rooms or settings if discussions are stalled. With respect to RMT, this change also supports a locomotion motivation. Indeed, in *The Handbook of Conflict Resolution*, Coleman and Deutsch (2014) elaborate that creating a space and time for creative problem-solving is critical to the successful resolution of conflict, and that a novel environment "can allow disputants some degree of freedom to try out new perspectives, behaviors, or ways of working out a problem" (p. 484). Unfortunately, this is not what is typically done. Instead, most conflict discussions with close social partners take place while seated. This could actually serve as a hindrance to effective conflict resolution discussions. Extrapolating on the research described above, we theorize that when people have such discussions while sitting down, they could risk becoming more psychologically entrenched in the conflict. Interestingly, recent research by Knight and Baer (2014) found that nonsedentary workspaces increased team arousal and reduced territoriality. Such work configurations (which encourage standing rather than sitting) are known to augment information-sharing, creativity, and efficiency in organizational settings, though this has not yet been extended to the realm of conflict resolution. These effects are generally not thought to be direct, but achieved through the interpersonal processes they elicit (see also cooperative vs. competitive stances below). This brings us to our next section. In addition to emphasizing the importance of studying movement *quality*, Koch et al. (2014) argue that research must turn to the more dynamic, interpersonal aspects of movement. Given this close link between physical and psychological movement, the question then becomes whether these effects translate and perhaps even strengthen when people go for a walk *together*.

Interpersonal Benefits of Walking: Coordination of Movement

> "Can two walk together, except they be agreed?"
>
> —*The Bible* (Amos 3:3)

Walking In-Step: Interactional Synchrony and Cooperation

Two people walking together rarely move in isolated vacuums, each maintaining an independent cadence. Rather, each person's gait influences the other's: walking side-by-side necessarily involves some coordination of rhythms, which often results in a synchrony of steps. Indeed, recent research has confirmed the occurrence of unconscious, spontaneous synchrony in walking pairs, even between strangers in a laboratory context (Van Ulzen, Lamoth, Daffertshofer, Semin, & Beek, 2008; Zivotofsky & Hausdorff, 2007). How does this synchrony influence the psychological experiences of walking partners? Could moving forward together in a coordinated rhythm facilitate the coordination of mental states, perspectives, and goals?

The affective, cognitive, and behavioral benefits of synchrony on interpersonal relationships have been well-documented. Interactional synchrony is defined as coordinated movement during a social interaction that is matched in form (style of movements) and time (temporal rhythm; see Bernieri & Rosenthal, 1991; Kimura & Daibo, 2006).

This tendency to coordinate one's movements with another's movements is so ingrained that even young infants synchronize their movements, and subsequently their affective states, with those of their caretakers (Weinberg & Tronick, 1996). Chartrand and Lakin (2013) theorize that interpersonal coordination (both synchrony and mimicry) provides the 'social glue' binding interaction partners to each other. However, the effects of behavioral synchrony have not, so far, been systematically studied in the context of conflict resolution. We propose that by going on a walk together, interaction partners could leverage the affective, cognitive, and behavioral consequences of synchrony to promote the conflict resolution process.

Affective. An array of studies has demonstrated that interactional synchrony can impact the feelings that interaction partners experience toward each other. Synchrony has been found to increase affiliation and connectedness, both correlationally and experimentally. For example, participants who spontaneously synchronized their tapping movements with those of an experimenter liked the experimenter more, as did participants explicitly instructed to synchronize (vs. asynchronize) their movements with the experimenter (Hove & Risen, 2009). Experiencing stable synchrony in an interaction has also been associated with greater positive rapport, both self-reported (Miles, Nind, & Macrae, 2009), and as observed by third-party individuals (Lakens & Stel, 2011). Furthermore, behavioral synchrony has been found to play a key role in the acquaintance process by mediating the relationship between self-disclosure and feelings of embodied rapport (Vacharkulksemsuk & Fredrickson, 2012). Perhaps as a result, synchronous behavior is exhibited most strongly in communal relationships between close partners (Smith, 2008). Recent work has shown that experimentally inducing perceived synchrony increases empathy, even for a virtual interaction partner (Koehne, Hatri, Cacioppo, & Dziobek, 2016). Thus, synchrony may facilitate positive psychological rapport, such as interpersonal closeness and partner empathy—both known to facilitate diverse conflict resolution processes, ranging from negotiation (e.g., Nadler, 2003) to forgiveness (e.g., McCullough et al., 1997).

Cognitive. In addition to influencing affect, interactional synchrony has been found to impact interpersonal cognition. Moving in synchrony seems to blur the cognitive boundaries between self and other. For example, participants report greater self-other overlap following a period of synchronous (vs. asynchronous) movement (Lumsden, Miles, & Macrae, 2014). Neuroimaging studies have confirmed the link between interpersonal synchrony and the involvement of brain regions related to self-other information processing (Cacioppo et al., 2014). Greater self-other overlap between close partners has been shown to decrease self-interest when distributing resources, and increase concern for a partner's outcomes more generally (Aron, Mashek, & Aron, 2004). Thus, it seems likely that the cognitive benefits of interactional synchrony would translate to conflict resolution contexts. For example, research shows that the likelihood of agreement in negotiation diminishes when partners are motivated by self-interest, and increases with concern for the other's outcomes (De Dreu, Weingart, & Kwon, 2000).

Behavioral. Most relevant to conflict resolution are the behavioral consequences of interactional synchrony. A recent surge of research has explored the extent to which interactional synchrony enhances cooperation. Wiltermuth and Heath (2009) established a causal linkage between synchrony and prosocial behavior: Participants who were instructed to walk in synchrony as a group (vs. uninstructed walking) were more willing to make personal sacrifices for the benefit of the group, above and beyond the effects of positive emotions. Synchrony also enhances the ability to achieve joint goals (Miles et al., 2009). Similar findings have been observed regarding altruistic behavior: Engaging in synchrony with a participant who was a victim of a moral transgression not only increased perceived similarity and compassion toward the victim, but also increased the likelihood of deciding to help that person, and of helping for longer (Valdesolo & Desteno, 2011). The altruistic effects of synchrony have even been demonstrated among 4-year olds (Kirschner & Tomasello, 2010) and infants (Cirelli, Einarson, & Trainor, 2014), who were more likely to engage in spontaneous cooperative and helping behavior after experiencing either synchronous walking or bouncing, respectively. In these different ways, the cooperative behaviors generated by walking and other forms of synchronous activity could benefit conflict resolution. Indeed, for decades, scholars have consistently found that reframing conflicts so that parties see themselves as *cooperative* rather than competitive is a fundamental aspect of constructive conflict resolution (see Deutsch, 2014).

Synchrony in conflict situations? Despite the pervasiveness of spontaneous synchrony, certain conflict situations may present boundary conditions under which synchrony is less likely to occur. For example, recent research has shown that debating or arguing strangers experience less movement synchrony (Bernieri, Davis, Rosenthal, & Knee, 1994; Paxton, & Dale, 2013). Other work has found that individuals are less likely to synchronize their movements with a tardy (vs. punctual) partner (Miles, Griffiths, Richardson, & Macrae, 2010). Thus, an existing lack of rapport, as could be generated by interpersonal conflict, may disrupt synchrony.

However, it is worth exploring the possibility that the act of going on a walk together could facilitate the restoration of synchrony during conflict. Notably, in each of the aforementioned studies examining disruptions of synchrony, the dyads were seated. Given that in-phase movement synchrony, such as that often generated when walking, has been

found to be highly stable and likely to emerge unintentionally (Marsh, Richardson, & Schmidt, 2009), going for a walk could present an opportunity for conflict partners to more easily coordinate their movements than when they are seated. Further, the mere decision to go on a walk together could combat the estrangement and avoidance typically generated by conflict. This decision may serve as a first step for partners to demonstrate their motivation to reconcile, activating affiliative goals and putting them in a "baseline" mindset of agreement. As theorized by Wheatley, Kang, Parkinson, and Looser (2012), "establishing synchrony may also engineer common ground when people desire reducing dissimilarity, such as in times of estrangement" (p. 599). Supporting this idea, Miles, Lumsden, Richardson, and Macrae (2011) found that participants synchronized their movements more with an interaction partner whom they believed did not share their art preferences. Thus, synchronization in times when social partners feel distanced may be especially instrumental for coming to an agreement. Future research could test the effect of a synchronous walking intervention, such as explicitly instructing partners to walk in-step, to help ensure that they benefit from movement synchrony.

Walking Side-by-Side: Joint Attention and Cooperative Stances

Another aspect of walking that is conducive to conflict resolution is that partners typically walk adjacently. The prescriptive literature points to the benefits of adopting a side-by-side cooperative stance (as opposed to a face-to-face competitive stance), not only in the realm of conflict resolution (Fisher, Ury, & Patton, 1991), but also in military negotiation training, and in problem-solving tactics in education. Indeed, empirical research has confirmed that face-to-face negotiation can have a detrimental impact on cooperative behavior by increasing the use of pressure tactics and staring to dominate the conversation, as well as increasing the interpretation of staring as domineering (Carnevale, Pruitt, & Seilheimer, 1981; Carnevale & Isen, 1986; Lewis & Fry, 1977). We expect that by automatically positioning partners in a cooperative stance and reinforcing the feeling of jointly tackling problems, walking can further assist conflict resolution. Recall that a cooperative (vs. competitive) mindset facilitates more constructive and creative resolutions (e.g., Carnevale & Probst, 1998; Deutsch, 2014). Adopting a cooperative stance may be especially effective during difficult conflicts, when it is critical for interaction partners to feel comfortable disclosing their feelings. Face-to-face communication may increase feelings of vulnerability and self-consciousness, which could hinder conflict resolution progress.

Interestingly, walking side-by-side also allows interaction partners to jointly face the physical environment. Observing dynamic (vs. static) scenes, which is inherent in walking, has been shown to elicit greater attentional synchrony (defined as spatiotemporal agreement) between interaction partners (Smith & Henderson, 2008). This shared attention can, by allowing participants to imagine stimuli from another perspective, shift their perspectives from egocentric to allocentric, thereby facilitating the establishment of common ground (Böckler, Knoblich, & Sebanz, 2011). The importance of shared attention for cooperation seems to be ingrained from childhood: experimentally increasing moment-by-moment coordination of attention (by using an attention-grabbing toy) was found to increase cooperative play among children (Yuill, Hinske, Williams, & Leith, 2014). Joint attention has been theorized to be an early developmental milestone of creating shared reality with others—even in infancy, humans use joint attention to establish common interest (Higgins, in press; Tomasello, 2014).

Discussion of Interpersonal Benefits of Walking

In sum, much research indicates that synchronous walking pairs may benefit from the positive repercussions of synchrony on emotional rapport, cognitive self-other overlap, and prosocial behavior and cooperation. Like Wheatley and colleagues (2012), we believe that such interpersonal synchrony may be critical to the process of restoring common ground during times when interaction partners feel out-of-rapport. In reciprocal entrainment, each partner slightly adjusts his or her rhythm to accommodate the other, paralleling the psychological accommodation inherent in the entrainment of ideas. Intriguingly, the act of walking also necessarily involves tacit spatiotemporal consensus about where and when to go, turn, stop, and so forth. This implicit, mutual sense of direction and destination may further reinforce this psychological alignment.

Although we have focused the current discussion on dyads, it would also be of interest to explore this phenomenon in groups (see Ury, 2010). Social movements are indeed often initiated and expressed through walking in unison. Marches, strikes, and protests show solidarity of purpose, particularly in the face of the polarizing effects of conflict. Recent work from the field of evolutionary biology has shown that synchrony may promote group bonding via heightened endorphin release (Cohen, Ejsmond-Frey, Knight, & Dunbar, 2010)—suggesting that synchronous walking may have played an important evolutionary role in maintaining group cohesion and harmony.

General Discussion and Future Directions

> "I have walked myself into my best thoughts and I know of no thought so burdensome that one cannot walk away from it."
>
> —Søren Kierkegaard

A convincing body of evidence gathered from diverse psychological literatures suggests that walking could be a beneficial tool for conflict resolution. Further studies are needed to elucidate these causal pathways and to uncover the optimal circumstances under which such benefits may arise. Are partners walking together more likely to resolve their conflicts? We next propose an interdisciplinary research agenda that would begin to explicitly address this question.

Intrapersonal Processes

On the basis that walking conjures positive affect, creativity, and embodied notions of forward movement, research should determine whether being engaged in a conflict discussion while walking (e.g., vs. seated) increases satisfaction, divergent thinking, and experiences of moving on for the individuals involved. Regarding the latter point, recent studies applying RMT to conflict resolution, which conceptually inspired this article, found that having a stronger locomotion orientation (a proclivity for movement and change from one state to another) facilitated a motivation to reconcile. Given this, a priority for future work is to consider how locomotion motivation moderates the potential walking mechanisms that we have reviewed. For example, Kruglanski, Pierro, and Higgins (2016) recently highlighted that, given their preoccupation with *moving on* and change, high locomotors tend to be future-oriented and not concerned with past mistakes. Would this motivation to move on and get over a previous conflict be intensified when they are walking (e.g., vs. seated) with their conflict partner? Do individual differences in state and trait locomotion predict variation in the degree to which walking is more generally effective for resolution? What are the situations (e.g., conflict or relationship contexts) under which these motivational patterns most consistently emerge?

Cultural Moderators

The exploration of cultural continuities and discontinuities in our propositions represents another avenue for future study. By way of example, cultural differences in spatial metaphoric construals of time (e.g., whether the future is 'forward' vs. 'back') call into question whether embodied cognitions are shared universally (Núñez & Cooperrider, 2013). Given the metaphorical significance of movement to conflict resolution (see Table 1) and the cultural relativity of metaphors, a subsequent extension of this research agenda will be to explore such cross-cultural variation. Similarly, previous work has shown that having an interdependent (compared to an independent) construal of the self increases mimicry, a type of movement coordination (van Baaren, Maddux, Chartrand, de Bouter, & van Knippenberg, 2003). If this effect also applies to synchrony, would the prosocial benefits of synchronous walking be magnified in cultures characterized by interdependent self-construal?

Interpersonal Processes

Building on findings demonstrating that interactional synchrony, as is often generated by walking, gives rise to rapport, self-other overlap, and cooperation, future research should also explore whether walking (vs. sitting) partners report greater closeness and empathy, and whether they are more likely to reach mutually beneficial solutions. As discussed above, previous work has shown that a lack of rapport (as can be experienced in conflict) can reduce synchrony in seated discussions. An important line of work will be to identify the situational variables that trigger such a synchrony decline (e.g., severity of conflict content), and ways to counter these negative influences on synchrony. Could the ease with which synchrony emerges in walking accelerate the restoration of rapport? Previous work has shown that sharing the goal of synchronizing actually increases the effects of synchrony on cooperation (Reddish, Fischer, & Bulbulia, 2013). Thus, a promising line of research would examine the effectiveness of using an intentional synchrony intervention to explicitly instruct partners to fall in-step, or even a third-party mediator to orchestrate the entrainment of steps (e.g., by setting the walking rhythm). Likewise, joint attention interventions could be employed to promote allocentric perspective-taking in conflict discussions: would instructing partners to jointly attend to certain stimuli as they walk increase the extent to which they understand each other's perspectives?

Integrating Intra- and Interpersonal Processes

It will also be important for future research to examine the reciprocal nature of intrapersonal and interpersonal effects—for example, how do embodied cognitions, among other intrapersonal benefits, emerge and unfold dyadically? Examining whether embodiment processes elicited by moving are similarly applicable to people walking alone (e.g., individuals reflecting on interpersonal conflict experiences) and together (e.g., partners interacting regarding their conflict experiences) will elucidate the advantages of moving forward *together* over forward movement itself. Likewise, it is possible that the intrapersonal creativity engendered by walking would be enhanced in a dyadic interaction: is a solution derived from two creative thought processes greater than the sum of its parts? The same logic can apply to partners' moods—is positive affect enhanced via social reciprocation in such dyadic contexts? Other research could examine the reverse path—for example, how do synchrony and other interpersonal effects of joint walking augment the intrapersonal benefits? As one example, to the extent that the increased release of endorphins triggered by interac-

tional synchrony boosts mood (Cohen et al., 2010), it may also boost the executive functions of each individual and further contribute to problem-solving. Investigating such potential reciprocal relations between intra- and interpersonal benefits would provide linkages not just among our propositions, but between these respective areas of research more broadly.

Uniqueness of Walking

Finally, the question also arises as to whether these propositions are unique to walking, or pertain to other forms of physical activity as well. While various movement-oriented activities may elicit some of these intra- and interpersonal benefits, none of them capture the unique *combination* of benefits that walking can. For example, while higher intensity activities (e.g., running) may also stimulate embodied notions of forward movement, they can also produce fatigue, which has been shown to limit the aforementioned cognitive and affective benefits of physical exercise. Moreover, other coordinated activities (e.g., dancing) can very well promote behavioral synchrony, but may not capitalize on the other potential interpersonal benefits of walking for conflict resolution (such as side-by-side stances and joint attention). Last but not least, compared to these alternatives, walking is a relatively pragmatic and feasible activity that partners can engage in together without requiring specific skillsets, training, or fitness. Nonetheless, it would be useful for future research to compare the relative conflict resolution benefits of walking versus other physical activities to isolate underlying mechanisms (see LeBaron, MacLeod, & Acland, 2014).

Importantly, the act of walking does not require too much conscious effort, facilitating the kind of free-flowing mental state that studies commonly link to strokes of insight. Repetitive activities like walking are not only something famous historical and contemporary thinkers have espoused (Kant, Einstein, Mozart, and even Steve Jobs were all said to take routine walks), but a very *practical* solution that people can implement in their everyday lives. Simply taking time and distance can help people gain new perspectives and potentially overcome the barriers that conflict so often creates. Access to novel spaces can allow people to remove themselves from customary environments and think afresh in new surroundings. On the other hand, partners' usual environments can draw them back into habitual ways of seeing a problem and responding to it. Indeed, the benefits of walking may be particularly strong in nature (see Berman, Jonides, & Kaplan, 2008), further highlighting how certain spaces might encourage different mindsets.

Conclusion

While lay theories and various prescriptive literatures have addressed the potential benefits of joint movement on conflict resolution, the mechanisms by which walking together could promote the resolution of interpersonal conflict remain less understood. Going for a walk together offers a very practical and cost-effective strategy for negotiators, clinicians, and close social partners. Though the social psychology of walking, and its influence on interpersonal processes like conflict resolution, have yet to be systematically investigated, they point to important, novel avenues of research we hope this article will inspire.

References

Aron, A. P., Mashek, D. J., & Aron, E. N. (2004). Closeness as including other in the self. In D. J. Mashek & A. Aron (Eds.), *Handbook of closeness and intimacy* (pp. 27–41). Mahwah, NJ: Erlbaum.

Ashby, F. G., Isen, A. M., & Turken, A. U. (1999). A neuropsychological theory of positive affect and its influence on cognition. *Psychological Review, 106,* 529–550. http://dx.doi.org/10.1037/0033-295X.106.3.529

Avnet, T., & Higgins, E. T. (2003). Locomotion, assessment, and regulatory fit: Value transfer from "how" to "what." *Journal of Experimental Social Psychology, 39,* 525–530. http://dx.doi.org/10.1016/S0022-1031(03)00027-1

Bar-Tal, D., Kruglanski, A. W., & Klar, Y. (1989). Conflict termination: An epistemological analysis of international cases. *Political Psychology, 10,* 233–255. http://dx.doi.org/10.2307/3791646

Berman, M. G., Jonides, J., & Kaplan, S. (2008). The cognitive benefits of interacting with nature. *Psychological Science, 19,* 1207–1212. http://dx.doi.org/10.1111/j.1467-9280.2008.02225.x

Bernieri, F. J., Davis, J. M., Rosenthal, R., & Knee, C. R. (1994). Interactional synchrony and rapport: Measuring synchrony in displays devoid of sound and facial affect. *Personality and Social Psychology Bulletin, 20,* 303–311. http://dx.doi.org/10.1177/0146167294203008

Bernieri, F. J., & Rosenthal, R. (1991). Interpersonal coordination: Behavior matching and interactional synchrony. In R. Feldman & R. Rime (Eds.), *Fundamentals of nonverbal behavior* (pp. 401–432). Cambridge, England: Cambridge University Press.

Biddle, S. J. H., Fox, K., & Boutcher, S. (2002). *Physical activity and psychological well-being*. London, United Kingdom: Routledge.

Böckler, A., Knoblich, G., & Sebanz, N. (2011). Giving a helping hand: Effects of joint attention on mental rotation of body parts. *Experimental Brain Research, 211,* 531–545. http://dx.doi.org/10.1007/s00221-011-2625-z

Cacioppo, S., Zhou, H., Monteleone, G., Majka, E. A., Quinn, K. A., Ball, A. B., . . . Cacioppo, J. T. (2014). You are in sync with me: Neural correlates of interpersonal synchrony with a partner. *Neuroscience, 277,* 842–858. http://dx.doi.org/10.1016/j.neuroscience.2014.07.051

Carnevale, P. J. (2014). Creativity in the outcomes of conflict. In M. Deutsch, P. T. Coleman, & E. C. Marcus (Eds.), *The handbook of conflict resolution: Theory and practice* (3rd ed., pp. 478–489). San Francisco, CA: Jossey-Bass.

Carnevale, P. J., & Isen, A. M. (1986). The influence of positive affect and visual access on the discovery of integrative solutions in bilateral negotiation. *Organizational Behavior and Human Decision Processes, 37,* 1–13. http://dx.doi.org/10.1016/0749-5978(86)90041-5

Carnevale, P. J., & Probst, T. M. (1998). Social values and social conflict in creative problem solving and categorization. *Journal of Personality and Social Psychology, 74,* 1300–1309. http://dx.doi.org/10.1037/0022-3514.74.5.1300

Carnevale, P. J., Pruitt, D. G., & Seilheimer, S. D. (1981). Looking and competing: Accountability and visual access in integrative bargaining. *Journal of Personality and Social Psychology, 40,* 111–120. http://dx.doi.org/10.1037/0022-3514.40.1.111

Chartrand, T. L., & Lakin, J. L. (2013). The antecedents and consequences of human behavioral mimicry. *Annual Review of Psychology, 64,* 285–308. http://dx.doi.org/10.1146/annurev-psych-113011-143754

Chermahini, S. A., & Hommel, B. (2012). Creative mood swings: Divergent and convergent thinking affect mood in opposite ways. *Psychological Research, 76,* 634–640. http://dx.doi.org/10.1007/s00426-011-0358-z

Cirelli, L. K., Einarson, K. M., & Trainor, L. J. (2014). Interpersonal synchrony increases prosocial behavior in infants. *Developmental Science, 17,* 1003–1011. http://dx.doi.org/10.1111/desc.12193

Cohen, E. E., Ejsmond-Frey, R., Knight, N., & Dunbar, R. I. M. (2010). Rowers' high: Behavioural synchrony is correlated with elevated pain thresholds. *Biology Letters, 6,* 106–108. http://dx.doi.org/10.1098/rsbl.2009.0670

Coleman, P. T., & Deutsch, M. (2014). Some guidelines for developing a creative approach to conflict. In M. Deutsch, P. T. Coleman, & E. C. Marcus (Eds.), *The handbook of conflict resolution: Theory and practice* (3rd ed., pp. 478–489). San Francisco, CA: Jossey-Bass.

Coleman, P. T., Kugler, K. G., Bui-Wrzosinska, L., Nowak, A., & Vallacher, R. (2012). Getting down to basics: A situated model of conflict in social relations. *Negotiation, 28,* 7–43. http://dx.doi.org/10.1111/j.1571-9979.2011.00324.x

De Dreu, C. K. W., Weingart, L. R., & Kwon, S. (2000). Influence of social motives on integrative negotiation: A meta-analytic review and test of two theories. *Journal of Personality and Social Psychology, 78,* 889–905. http://dx.doi.org/10.1037/0022-3514.78.5.889

Deutsch, M. (1973). *The resolution of conflict: Constructive and destructive processes*. New Haven, CT: Yale University Press.

Deutsch, M. (2014). Cooperation, competition, and conflict. In M. Deutsch, P. T. Coleman, & E. C. Marcus (Eds.), *The handbook of conflict resolution: Theory and practice* (3rd ed., pp. 3–28). San Francisco, CA: Jossey-Bass.

de Waal, F. B. M. (2000). Primates: A natural heritage of conflict resolution. *Science, 289,* 586–590. http://dx.doi.org/10.1126/science.289.5479.586

Ekkekakis, P., Hall, E. E., VanLanduyt, L. M., & Petruzzello, S. J. (2000). Walking in (affective) circles: Can short walks enhance affect? *Journal of Behavioral Medicine, 23,* 245–275. http://dx.doi.org/10.1023/A:1005558025163

Fisher, R., Ury, W., & Patton, B. (1991). *Getting to yes: Negotiating agreement without giving in*. New York, NY: Penguin.

Higgins, E. T. (2012). *Beyond pleasure and pain: How motivation works*. New York, NY: Brunner-Routledge.

Higgins, E. T. (in press). Development of shared reality in childhood. *Perspectives on Psychological Science*.

Higgins, E. T., Kruglanski, A. W., & Pierro, A. (2003). Regulatory mode: Locomotion and assessment as distinct orientations. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 35, pp. 293–344). New York, NY: Academic Press.

Hove, M. J., & Risen, J. L. (2009). It's all in the timing: Interpersonal synchrony increases affiliation. *Social Cognition, 27,* 949–960. http://dx.doi.org/10.1521/soco.2009.27.6.949

Hughes, M. (2009). Building your team's conflict-resolution skills with emotional and social intelligence. In M. Hughes, H. L. Thompson, & J. B. Terrell (Eds.), *Handbook for developing emotional and social intelligence: Best practices, case studies, and strategies* (pp. 141–164). San Francisco, CA: Pfeiffer.

Kimura, M., & Daibo, I. (2006). Interactional synchrony in conversations about emotional episodes: A measurement by "the between-participants pseudosynchrony experimental paradigm." *Journal of Nonverbal Behavior, 30,* 115–126. http://dx.doi.org/10.1007/s10919-006-0011-5

Kirschner, S., & Tomasello, M. (2010). Joint music making promotes prosocial behavior in 4-year-old children. *Evolution and Human Behavior, 31,* 354–364. http://dx.doi.org/10.1016/j.evolhumbehav.2010.04.004

Knight, A. P., & Baer, M. (2014). Get up, stand up: The effects of a non-sedentary workspace on information elaboration and group performance. *Social Psychological & Personality Science, 5,* 910–917. http://dx.doi.org/10.1177/1948550614538463

Koch, S. C., Fuchs, T., & Summa, M. (2014). Body memory and kinesthetic body feedback: The impact of light versus strong movement qualities on affect and cognition. *Memory Studies, 7,* 272–284. http://dx.doi.org/10.1177/1750698014530618

Koehne, S., Hatri, A., Cacioppo, J. T., & Dziobek, I. (2016). Perceived interpersonal synchrony increases empathy: Insights from autism spectrum disorder. *Cognition, 146,* 8–15. http://dx.doi.org/10.1016/j.cognition.2015.09.007

Kruglanski, A. W., Pierro, A., & Higgins, E. T. (2016). Experience of time by people on the go: A theory of the locomotion-temporality interface. *Personality and Social Psychology Review, 20,* 100–117. http://dx.doi.org/10.1177/1088868315581120

Kruglanski, A. W., Thompson, E. P., Higgins, E. T., Atash, M. N., Pierro, A., Shah, J. Y., & Spiegel, S. (2000). To "do the right thing" or to "just do it": Locomotion and assessment as distinct self-regulatory imperatives. *Journal of Personality and Social Psychology, 79,* 793–815. http://dx.doi.org/10.1037/0022-3514.79.5.793

Lakens, D., & Stel, M. (2011). If they move in sync, they must feel in sync: Movement synchrony leads to attributions of rapport and entitativity. *Social Cognition, 29,* 1–14. http://dx.doi.org/10.1521/soco.2011.29.1.1

Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago, IL: University of Chicago Press.

Landau, M. J., Meier, B. P., & Keefer, L. A. (2010). A metaphor-enriched social cognition. *Psychological Bulletin, 136,* 1045–1067. http://dx.doi.org/10.1037/a0020970

Landau, M. J., Oyserman, D., Keefer, L. A., & Smith, G. C. (2014). The college journey and academic engagement: How metaphor use enhances identity-based motivation. *Journal of Personality and Social Psychology, 106,* 679–698. http://dx.doi.org/10.1037/a0036414

LeBaron, M., MacLeod, C., & Acland, A. F. (Eds.). (2014). *The choreography of resolution: Conflict, movement, and neuroscience*. Chicago, IL: American Bar Association.

Levinger, G. (1957). Kurt Lewin's approach to conflict resolution: A review with some extensions. *The Journal of Conflict Resolution, 1,* 329–339. http://dx.doi.org/10.1177/002200275700100402

Lewin, K. (1936). *Principles of topical psychology*. New York, NY: McGraw-Hill Book Company. http://dx.doi.org/10.1037/10019-000

Lewin, K. (1951). *Field theory in social science*. New York, NY: Harper.

Lewis, S. A., & Fry, W. R. (1977). Effects of visual access and orientation on the discovery of integrative bargaining alternatives. *Organizational Behavior and Human Decision Processes, 20,* 75–92. http://dx.doi.org/10.1016/0030-5073(77)90045-9

Lumsden, J., Miles, L. K., & Macrae, C. N. (2014). Sync or sink? Interpersonal synchrony impacts self-esteem. *Frontiers in Psychology, 5,* 1064. http://dx.doi.org/10.3389/fpsyg.2014.01064

Marcus, E. C. (2014). Change and conflict: Motivation, resistance, and commitment. In M. Deutsch, P. T. Coleman, & E. C. Marcus (Eds.), *The handbook of conflict resolution: Theory and practice* (3rd ed., pp. 513–532). San Francisco, CA: Jossey-Bass.

Marsh, K. L., Richardson, M. J., & Schmidt, R. C. (2009). Social connection through joint action and interpersonal coordination. *Topics in Cognitive Science, 1,* 320–339. http://dx.doi.org/10.1111/j.1756-8765.2009.01022.x

McCullough, M. E., Worthington, E. L. J., Jr., & Rachal, K. C. (1997). Interpersonal forgiving in close relationships. *Journal of Personality and Social Psychology, 73,* 321–336. http://dx.doi.org/10.1037/0022-3514.73.2.321

Merchant, N. (2013, February). Got a meeting? Take a walk [Video file]. Retrieved from https://www.ted.com/talks/nilofer_merchant_got_a_meeting_take_a_walk

Miles, L. K., Griffiths, J. L., Richardson, M. J., & Macrae, C. N. (2010). Too late to coordinate: Contextual influences on behavioral synchrony. *European Journal of Social Psychology, 40,* 52–60.

Miles, L. K., Lumsden, J., Richardson, M. J., & Macrae, C. N. (2011). Do birds of a feather move together? Group membership and behavioral synchrony. *Experimental Brain Research, 211,* 495–503. http://dx.doi.org/10.1007/s00221-011-2641-z

Miles, L. K., Nind, L. K., & Macrae, C. N. (2009). The rhythm of rapport: Interpersonal synchrony and social perception. *Journal of Experimental Social Psychology, 45,* 585–589. http://dx.doi.org/10.1016/j.jesp.2009.02.002

Miles, L. K., Nind, L. K., & Macrae, C. N. (2010). Moving through time. *Psychological Science, 21,* 222–223. http://dx.doi.org/10.1177/0956797609359333

Nadler, J. (2003). Rapport in negotiation and conflict resolution. *Marquette Law Review, 87,* 875–882.

Natanzon, M., & Ferguson, M. J. (2012). Goal pursuit is grounded: The link between forward movement and achievement. *Journal of Experimental Social Psychology, 48,* 379–382. http://dx.doi.org/10.1016/j.jesp.2011.06.021

Netz, Y., Tomer, R., Axelrad, S., Argov, E., & Inbar, O. (2007). The effect of a single aerobic training session on cognitive flexibility in late middle-aged adults. *International Journal of Sports Medicine, 28,* 82–87. http://dx.doi.org/10.1055/s-2006-924027

Niedenthal, P. M., Barsalou, L. W., Winkielman, P., Krauth-Gruber, S., & Ric, F. (2005). Embodiment in attitudes, social perception, and emotion. *Personality and Social Psychology Review, 9,* 184–211. http://dx.doi.org/10.1207/s15327957pspr0903_1

Núñez, R., & Cooperrider, K. (2013). The tangle of space and time in human cognition. *Trends in Cognitive Sciences, 17,* 220–229. http://dx.doi.org/10.1016/j.tics.2013.03.008

Oppezzo, M., & Schwartz, D. L. (2014). Give your ideas some legs: The positive effect of walking on creative thinking. *Journal of Experimental Psychology, 40,* 1142–1152. http://dx.doi.org/10.1037/a0036577

Paxton, A., & Dale, R. (2013). Argument disrupts interpersonal synchrony. *Quarterly Journal of Experimental Psychology: Human Experimental Psychology, 66,* 2092–2102. http://dx.doi.org/10.1080/17470218.2013.853089

Pruitt, D. G., & Lewis, S. A. (1975). Development of integrative solutions in bilateral negotiation. *Journal of Personality and Social Psychology, 31,* 621–633. http://dx.doi.org/10.1037/0022-3514.31.4.621

Reddish, P., Fischer, R., & Bulbulia, J. (2013). Let's dance together: Synchrony, shared intentionality and cooperation. *PLoS ONE, 8,* e71182. http://dx.doi.org/10.1371/journal.pone.0071182

Robinson, M. D., & Fetterman, A. K. (2015). The embodiment of success and failure as forward versus backward movements. *PLoS ONE, 10,* e0117285. http://dx.doi.org/10.1371/journal.pone.0117285

Sell, A. J., & Kaschak, M. P. (2011). Processing time shifts affects the execution of motor responses. *Brain and Language, 117,* 39–44. http://dx.doi.org/10.1016/j.bandl.2010.07.003

Smith, E. R. (2008). An embodied account of self-other "overlap" and its effects. In G. R. Semin & E. R. Smith (Eds.), *Embodied grounding: Social, cognitive, affective and neuroscientific approaches* (pp. 148–159). Cambridge, United Kingdom: Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511805837.007

Smith, T., & Henderson, J. (2008). Attentional synchrony in static and dynamic scenes. *Journal of Vision, 8,* 773. http://dx.doi.org/10.1167/8.6.773

Thompson, L. Y., Snyder, C. R., Hoffman, L., Michael, S. T., Rasmussen, H. N., Billings, L. S., . . . Roberts, D. E. (2005). Dispositional forgiveness of self, others, and situations. *Journal of Personality, 73,* 313–359. http://dx.doi.org/10.1111/j.1467-6494.2005.00311.x

Tomasello, M. (2014). *A natural history of human thinking*. Cambridge, MA: Harvard University Press. http://dx.doi.org/10.4159/9780674726369

Tomporowski, P. D. (2003). Effects of acute bouts of exercise on cognition. *Acta Psychologica, 112,* 297–324. http://dx.doi.org/10.1016/S0001-6918(02)00134-8

Ury, W. (2010, October). The walk from "no" to "yes" [Video file]. Retrieved from http://www.ted.com/talks/william_ury

Vacharkulksemsuk, T., & Fredrickson, B. L. (2012). Strangers in sync: Achieving embodied rapport through shared movements. *Journal of Experimental Social Psychology, 48,* 399–402. http://dx.doi.org/10.1016/j.jesp.2011.07.015

Valdesolo, P., & Desteno, D. (2011). Synchrony and the social tuning of compassion. *Emotion, 11,* 262–266. http://dx.doi.org/10.1037/a0021302

Vallacher, R. R., Coleman, P. T., Nowak, A., & Bui-Wrzosinska, L. (2010). Rethinking intractable conflict: The perspective of dynamical systems. *American Psychologist, 65,* 262–278. http://dx.doi.org/10.1037/a0019290

van Baaren, R. B., Maddux, W. W., Chartrand, T. L., de Bouter, C., & van Knippenberg, A. (2003). It takes two to mimic: Behavioral consequences of self-construals. *Journal of Personality and Social Psychology, 84,* 1093–1102. http://dx.doi.org/10.1037/0022-3514.84.5.1093

van Ulzen, N. R., Lamoth, C. J. C., Daffertshofer, A., Semin, G. R., & Beek, P. J. (2008). Characteristics of instructed and uninstructed interpersonal coordination while walking side-by-side. *Neuroscience Letters, 432,* 88–93. http://dx.doi.org/10.1016/j.neulet.2007.11.070

Webb, C. E. (2015). Moving past conflict: How locomotion facilitates reconciliation in humans and chimpanzees (*Pan troglodytes*). (Doctoral thesis). Columbia University, New York, NY.

Webb, C. E., Franks, B., Romero, T., Higgins, E. T., & de Waal, F. B. M. (2014). Individual differences in chimpanzee reconciliation relate to social switching behaviour. *Animal Behaviour, 90,* 57–63. http://dx.doi.org/10.1016/j.anbehav.2014.01.014

Weinberg, M. K., & Tronick, E. Z. (1996). Infant affective reactions to the resumption of maternal interaction after the still-face. *Child Development, 67,* 905–914. http://dx.doi.org/10.2307/1131869

Wheatley, T., Kang, O., Parkinson, C., & Looser, C. E. (2012). From mind perception to mental connection: Synchrony as a mechanism for social understanding. *Social and Personality Psychology Compass, 6,* 589–606. http://dx.doi.org/10.1111/j.1751-9004.2012.00450.x

Wiltermuth, S. S., & Heath, C. (2009). Synchrony and cooperation. *Psychological Science, 20,* 1–5. http://dx.doi.org/10.1111/j.1467-9280.2008.02253.x

Yuill, N., Hinske, S., Williams, S. E., & Leith, G. (2014). How getting noticed helps getting on: Successful attention capture doubles children's cooperative play. *Frontiers in Psychology, 5,* 418.

Zartman, I. W. (2000). Ripeness. In P. Stem & D. Druckman (Eds.), *International conflict resolution after the cold war* (pp. 225–250). Washington, DC: National Academy Press.

Zivotofsky, A. Z., & Hausdorff, J. M. (2007). The sensory feedback mechanisms enabling couples to walk synchronously: An initial investigation. *Journal of Neuroengineering and Rehabilitation, 4,* 28. http://dx.doi.org/10.1186/1743-0003-4-28

Received September 26, 2015
Revision received February 24, 2016
Accepted May 9, 2016