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Creativity and negotiation research: the integrative potential

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Abstract

Purpose – The purpose of this article is to outline ways in which the large body of empirical work on creativity can meaningfully inform negotiation. In doing so, two general streams of creativity research and their implications for negotiation theory and empirical analysis are considered. Negotiation pundits advise that negotiators should engage in creative problem-solving to craft integrative agreements, and it is widely believed by both negotiation theorists and practitioners that “out-of-the-box” thinking and creative idea generation are necessary for win–win negotiation. Although practitioners have strongly encouraged parties to engage in creative problem-solving, there are remarkably few empirical investigations of creative thinking, brainstorming and other idea-generation methods in negotiation.

Design/methodology/approach – First, creativity as a trait is considered and the relationship between individual differences in creativity and negotiation performance is examined. Then, creative thinking as a causal factor is examined and how it may influence the negotiation process and outcomes is suggested. Finally, three considerations for further integrating creativity and negotiation research are suggested: communication media, idea-generation strategies and morality and social motivation.

Findings – A literature review revealed four studies that have empirically tested the influence of trait creativity on negotiation performance. Even less research has manipulated creative thinking or training to analyze creativity as a causal factor of negotiation outcomes.

Originality/value – This research will benefit both creativity and negotiation scholars by suggesting the limited amount of work at their intersection yet the opportunities that exist for further research.

Keywords Creativity, groups, Negotiation, Integrative agreements, Creative problem-solving, Negotiation performance

Paper type Literature review

Negotiation is commonly considered to be a joint problem-solving or decision-making task (Carroll et al., 1988; Kelley and Thibaut, 1978; Lax and Sebenius, 1986; Prietula and Weingart, 1994; Raiffa, 1982; Siegel and Fouraker, 1960) requiring both exploration and flexible thought to discover alternatives and fashion creative solutions. Indeed, negotiation scholars advise that creative idea generation is essential for successful negotiation. For example, in the Art and Science of Negotiation, Raiffa (1982, p. 315) encourages negotiators to engage is “creative side-by-side joint problem solving”. Similarly, in The Manager as Negotiator, Lax and Sebenius (1986, p. 31) suggest parties should “treat the negotiation as solving a joint problem” and “may succeed by putting familiar pieces of the problem together in ways that people had not previously seen”.

Negotiation scholars have also used classic creativity puzzles and problems to conceptualize negotiation. For example, Bazerman and Neale (1992) use the nine-dot
problem to theorize how negotiators are often biased in their approach to discovering solutions. In the nine-dot exercise, people are asked to draw four straight lines to connect nine dots arranged in three rows of three. When initially attempting to solve this problem, people often are unable to solve it because they assume the dots must be connected within the boundaries they seemingly impose (and it appears that five or more lines are needed). However, elegant solutions requiring only four lines exist that fewer than 10 per cent of problem-solvers generally discover without hints (Chronicle et al., 2001; Kershaw and Ohlssoon, 2004; Van Steenburgh et al., 2012). Bazerman and Neale (1992) accordingly argue that solving the nine-dot problem is akin to overcoming the fixed-pie perception, or the faulty belief that negotiators’ interests are fully opposed. By abandoning or at least testing their assumptions, negotiators can discover their interests are not perfectly opposed, and there are elegant ways to resolve the negotiation. In conceptualizing the challenge of negotiation as similar to a creativity puzzle, negotiation researchers have also attempted to elucidate the cognitive factors that impede creativity problem-solving. For example, Walton and McKersie (1965) argue in *A Behavioral Theory of Labor Negotiations* that both parties should “drop their preconceptions and jointly look at problems in the most flexible way possible” (p. 152), and “invention and creativity are essential in order for appropriate arrangements to be developed for coping with the problems” (p. 139).

The large body of work in negotiation is nearly universal in conceptualizing negotiation as a creative problem-solving task. For this reason, it is argued that creativity is important and even essential for successful negotiation. Despite the powerful analogy of negotiation as a creative problem-solving task, however, there is a surprising lack of empirical work linking creativity and negotiation. In this review article, we consider the extant research at the intersection of these two literatures. We then outline an agenda that would allow negotiation research to benefit from the vast investigations of creativity and suggest some (non-obvious) research implications.

**Mixed-motives and creative problem-solving**

Negotiation is broadly considered to be a mixed-motive task (Kelley and Stahelski, 1970; Lax and Sebenius, 1986) because it requires both cooperation and competition to succeed (Mannix et al., 1989; Raiffa, 1982; Walton and McKersie, 1965). On the one hand, negotiators are encouraged to behave cooperatively to reach mutual agreement, yet each party seeks to maximize his own outcomes, so there is also competition (i.e. the negotiator’s dilemma; Lax and Sebenius, 1986). Thus, although conveying one’s interests may promote agreement, it may also increase a negotiator’s vulnerability. As a result, negotiators often assess whether the other party will engage in cooperation or competition prior to exposing their own interests (Adair and Brett, 2005).

The cooperative aspect of negotiation is often referred to as the integrative element (Follett, 1940; Raiffa, 1982) or value creating process (Lax and Sebenius, 1986); the more negotiators assess their similarities and consider alternatives, the more likely they are to discover creative solutions. However, no matter how much value is discovered through creative problem-solving, negotiators must ultimately decide how to divide or allocate that value; this competitive process is described as value claiming (Lax and Sebenius, 1986) or the distributive component (Raiffa, 1982).

A classic analogy used to convey the distributive and integrative aspects of negotiation is the sisters and the orange problem (Follett, 1940). Two sisters each want
a single orange. A common solution is simply to cut the orange in half, which the sisters ultimately decide to do, but this outcome is suboptimal because a mutually beneficial, or win–win, solution actually exists. By focusing on their demands, the sisters fail to realize their underlying interests: one of them only wants the rind to bake a pie, and the other needs to make orange juice. A superior solution would fully satisfy the disputing sisters and involves dividing the orange into its constituent parts, such that the one sister receives the entire peel, and the other receives all of the juice. Implied in this story is the supposition that the protagonists failed to brainstorm alternatives that would have helped them discover the needs-based solution and settled for a suboptimal solution instead.

Problem-solving involved in problems such as the sisters and the orange negotiation is defined by their “Eureka!” characteristic. Such problems may be elegantly solved through compelling, yet such non-obvious solutions that people often first come to an impasse, cannot report the processing that allowed them to reframe and reconsider the problem to overcome that impasse and feel as if they stumbled on the answers experiencing an “Aha!” moment (Duncker, 1945; Gick and Holyoak, 1980; Jung-Beeman et al., 2004; Maier, 1931; Metcalfe and Wiebe, 1987; Smith and Kounios, 1996).

Another analogy that conveys the “Eureka!”-type problem-solving involved in negotiation is the story of two men arguing in a library. Recounted by Fisher et al. (1991), one man wants a window to be opened and the other demands it to be shut (adapted from Follett, 1925). After hearing the men’s bickering, a librarian walks in and asks each of them why they would like the window to be opened or closed only to uncover that one wants it opened to get fresh air, and the other wants the window closed to avoid a draft. The librarian realizes that an integrative agreement exists that would satisfy both parties’ interests, walks over to the window in a neighboring room and proceeds to open it. In doing so, the breeze creates fresh air without a draft in the room where the men sit.

In most theoretical treatments of negotiation, win–win outcomes are defined as solutions that allow both parties to achieve outcomes that are far superior to compromise solutions (Pruitt, 1981; Thompson et al., 1988). The solutions possible in the story of the quarreling sisters and parable of the bickering men are both examples of optimal integrative agreements that lie on the Pareto-optimal frontier (Nash, 1950), meaning that no other possible agreement would benefit one party without hurting the other party in some way. Both problems also contain the elements of “Eureka!”-type problem-solving. The optimal outcomes are not obvious but so compelling that when they are pointed out to negotiators who fail to realize such outcomes, they experience the “Aha!” experience that problem-solvers feel when they are shown (or realize) the elegant solution to a creativity puzzle (Metcalfe and Wiebe, 1987; Smith and Kounios, 1996).

In empirical investigations of negotiation, researchers use highly structured tasks to measure negotiation performance. This paradigm is known as the induced preference paradigm (Carnevale and Isen, 1986; Kelley, 1966; Roth et al., 1988; Thompson and Hastie, 1990). For example, in a highly original investigation, Kelley (1966) gave two negotiators “point charts” (also known as pay-off schedules) and challenged participants to reach a mutually agreeable solution. Unbeknownst to participants, there existed an optimal (“Aha!”) solution. Negotiators often perceive themselves to have perfectly opposing interests although, in reality, their interests are not perfectly opposed (Thompson and Hastie, 1990). Indeed, a non-obvious best solution often exists that maximizes negotiators’ total gains but is only attainable through careful examination,
setting aside assumptions and other creative idea generation. Negotiation researchers have identified specific strategies for attaining optimal solutions in such tasks that include, logrolling, identifying compatible issues and in some cases, crafting contingency contracts (for reviews, see Bazerman, 2009; Pruitt, 1983; Thompson, 2015). Surprisingly, despite the fact that negotiators are incentivized to maximize their own outcomes, which would be most attainable by discovering the full integrative potential of the task, negotiators often do not realize the elegant win-win solution. In fact, they fall far short. For example, even in tasks in which parties’ interests are entirely compatible, 50 per cent of negotiators fail to realize that interest alignment and 20 per cent fail to settle on the best outcome (Thompson and Hrebec, 1996).

Most treatments of negotiation attribute negotiators’ failure to craft win–win solutions to biased judgments of the other party (Bazerman and Neale, 1983; Thompson and Hastie, 1990), insufficient exploration of alternatives, failure to signal one’s interests and a host of other cognitive–motivational barriers (for review, see Bazerman et al., 2000). Moreover, careful examinations of the negotiation process reveal a positive correlation between the number of alternatives or offers considered and the quality of negotiated agreements (Hyder et al., 2000; Pruitt and Lewis, 1975; Weingart et al., 1993). This implies that negotiators often fail to explore and examine options and settle too quickly for suboptimal outcomes. Two factors are, thus, considered to be key determinants of a win–win negotiation: the creation and consideration of a plethora of alternatives and the ability to set judgment and censure aside.

It is striking that these two factors – the generation of several alternatives and the setting aside of judgment and criticism – are precisely the prescriptions for creative idea generation. Creativity is generally defined as the production of novel and useful ideas (Amabile, 1996; Mumford and Gustafson, 1988; Sternberg and Lubart, 1995; Woodman et al., 1993). Indeed, in Applied Imagination, Osborn (1957) outlined four cardinal rules for successful idea generation: rule out criticism, welcome free-wheeling, embrace quantity and build upon others’ ideas. Creativity scholars have also proposed indices for measuring creativity. For example, Guilford (1950) provided three indices for evaluating idea generation: fluency, flexibility and quantity. Fluency is a simple count of the number of ideas a person (or negotiator) generates, discounting duplicates and completely irrelevant ideas. Flexibility is the number of different types of ideas generated. Originality represents unique answers and is measured based on statistical frequency. Finke (1995) proposed a different model of creativity that has two dimensions – creativity and structural connectedness (usefulness) – and classifies ideas into one of four quadrants: creative realism, conservative realism, creative idealism and conservative idealism. Of these quadrants, the most desirable is creative realism because it represents imaginative ideas that are highly linked to ideas and structure.

On close inspection, there is a haunting alignment between the behaviors considered to be important for negotiation and those considered to be important for creativity. Researchers and theorists have suggested similar strategies to Osborn’s (1957) cardinal rules for successful negotiation, such as the importance of discarding preconceptions (Walton and McKersie, 1965), considering multiple offers (Hyder et al., 2000; Weingart et al., 1993) and making counteroffers (for review, see Thompson, 2015). In line with Finke’s (1995) model, negotiation scholars also espouse making optimistic but realistic offers (Raiffa, 1982). Making outrageous or unrealistic offers can stymie problem-solving and lead to an impasse.
Given the strong conceptual similarities between the behaviors considered to be essential for successful negotiation and creativity, it is rather startling that these fields have proceeded without much empirical regard for each other. There have been some important and notable exceptions to the distant-cousin relationship between these research domains, which we will outline below. The purpose of this review is not to examine exhaustively the methods or mechanisms by which negotiators might increase the likelihood of reaching win–win solutions nor to examine the reasons why negotiators fail to reach integrative agreement (for review, see Thompson, 2015), rather we consider how the understanding of negotiation can be better informed by research in creativity and creative thinking. Just as we limit our focus to negotiation research conducted in social psychology and organizational behavior, we limit our consideration of creativity research to social psychology and organizational behavior (for reviews of creativity in developmental and cognitive psychology, see Barron and Harrington, 1981; Dellas and Gaier, 1970; Drevdahl, 1956). In this review, we consider two general streams of research:

(1) trait creativity (creativity that is measured) and negotiation performance; and

(2) creativity as a deliberate thought process that can be practiced to examine the causal influence of creative thinking on the negotiation process and outcomes.

**Trait creativity and negotiation performance**

In the creativity literature, creativity is often considered a trait (the trait of originality) or individual difference (Amabile, 1983; Eysenck, 1993; Hovecar and Bachelor, 1989; Michael and Wright, 1989; Woodman and Schoenfeldt, 1989). For example, Mozart and Picasso are regarded as creative people, possessing a dispositional trait in high measure compared with other people; this trait is supposed to be normally distributed (Eysenck, 1993) and, to that effect, may be quantified using appropriate measurement instruments (Magnusson and Backteman, 1978). Two tests used for evaluating (trait) creativity are the Torrance Tests of Creativity Thinking (TTCT; Torrance, 1966/1990) and Wallach and Kogan (1965) tests. These tests both require people to complete a series of idea generation tasks and then evaluate the ideas based on variants of Guilford’s (1950) three indices.

If people vary in terms of their innate (trait-based) creativity, perhaps the most straightforward way to think of how creativity might inform negotiation research is by conceptualizing creativity as an individual difference. A reasonable hypothesis would argue that negotiators who are more creative are more likely to fashion integrative agreements.

Our literature review revealed four studies that examined the relationship between trait creativity and joint outcomes[1]. In Kurtzberg’s (1998) investigation, participants completed modified versions of two tasks from the TTCT (Torrance, 1966/1990): the Asking Questions task and Unusual Uses task. For the Asking Questions task, participants were shown an ambiguous image and asked to generate as many questions as they could to determine what was occurring in the photo. In the Unusual Uses task, participants were given 10 minutes and asked to list as many unusual uses as they could for a cardboard box. The key criterion measures of creativity were derived from Guilford’s (1950) model: fluency, flexibility and originality (Guilford, 1950; Torrance, 1966/1990). As a measure of flexibility, each idea was coded as a member of different categories (e.g. medical uses and religious uses) based on a modified version of the list of
categories included in the original scoring guide for the TTCT (Torrance, 1966/1990). Any answer generated by fewer than 5 per cent of participants was coded as original in line with previous research (Coney and Serna, 1995). Additionally, participants’ self-reported score on the Graduate Management Admission Test (GMAT) provided a control measure of cognitive aptitude.

The negotiation task was a two-party multi-issue negotiation that contained significant potential for integrative agreement. Like many negotiation tasks, to reach maximum joint profit, negotiators needed to logroll issues. Froman and Cohen (1970) explain logrolling as the bargaining process by which one party makes a concession on a negotiation issue and expects a reciprocal concession on another issue. In this sense, logrolling is analogous to the elegant solution possible in the sisters and the orange problem; in other words, one sister valued the juice more than the rind and vice versa for the other sister. Similarly, in this study, it was not immediately obvious that parties had different strengths of preference for the negotiation issues, such that to fashion an elegant trade-off (logroll), negotiators needed to concede on issues of less value to them in exchange for gains on issues of more importance. The negotiation task was also constructed so parties had differing forecasts about future events. Thus, negotiators could also create contingent agreements to increase their total profit.

The key research question was whether trait creativity (as measured at the dyadic level) would lead to more integrative negotiation outcomes. Results revealed that the joint creativity of the negotiating dyad (computed as the sum of the negotiators’ individual trait creativity scores) was positively correlated with their joint gains, such that negotiators with greater trait creativity achieved higher joint outcomes. Because the relationship was correlational (not causal), it was important to rule out other potential explanations, perhaps the most notable being innate intelligence. Subsequent analyses attempted to control for trait intelligence, but these findings were less clear. For example, when dyads’ combined GMAT score (a proxy for intelligence) was used as a control variable, the dyad’s combined creativity score only marginally predicted joint gains, which suggests the relationship between trait creativity and negotiation performance was explained by participants’ cognitive aptitude (i.e. thinking and reasoning abilities, independent of trait creativity).

Another set of analyses used individual trait creativity to predict joint profitability. These results indicated that people high in trait creativity were more likely to craft integrative negotiation agreements; this remained true even when GMAT scores were used as a control variable, such that even after controlling for cognitive reasoning, people higher in trait creativity crafted more win–win agreements. Interestingly, trait creativity did not predict individual profit, suggesting that trait creativity did not influence the competitive advantage of negotiation but rather only the cooperative outcomes. These results indicate the quality of negotiated agreements is significantly improved when at least one party in the negotiation has a high measure of trait creativity and is consistent with previous negotiation research that suggests information offered by one party is enough to significantly increase joint gains (Thompson, 1991).

Elfenbein et al. (2008) analyzed the relationship between trait creativity and negotiation performance. This investigation was largely exploratory without specific hypotheses, and approximately two dozen trait measures were correlated with negotiation performance[2]. As a measure of trait creativity, participants completed a
task from the TTCT (Torrance, 1966) similar to Kurtzberg’s (1998) study. They then engaged in a series of five two-party multi-issue negotiations. Results revealed that dyads high in trait creativity were able to create more value than dyads with low trait creativity, and this was primarily driven by creative negotiators’ ability to identify non-obvious compatible interests. The relationship between creativity and joint gains was not significant. However, the authors caution interpretation of these results given the battery of measures included in their investigation.

De Pauw et al. (2011) hypothesized that individual creativity would positively influence both economic (e.g. joint gains) and relational outcomes, or the degree to which negotiators are satisfied with the subjective aspect of the negotiation (Curhan et al., 2006). Similar to the Kurtzberg (1998) investigation, trait creativity was measured using the TTCT (Torrance, 1998). Participants completed three picture-based tasks – picture construction, picture completion and repeated figures of lines or circles; their pictures were then scored by a set of judges (blind to the experimental hypotheses) using five indices of creativity:

1. fluency;
2. originality;
3. elaboration (the amount of detail provided for each idea);
4. resistance to premature closure (the degree of psychological openness); and
5. abstractness of titles (the degree that participants synthesize the information and capture its importance in their response).

A composite of these scores provided a creativity index (CI) for each participant reflecting their creative potential.

Participants were then assigned to negotiate with another person on a task that contained integrative potential. Two types of dyads were constructed based on negotiators’ measured trait creativity. Some dyads consisted of people with creativity scores above the normalized mean CI (high combined trait creativity); other dyads were composed of people with trait creativity scores below the sample mean (low trait creativity). The participants in each dyad had relatively equal scores.

Participants then engaged in a two-party multi-issue negotiation that contained a very small zone of possible agreement, but trade-offs among differentially valued issues could be constructed to create integrative agreement. Thus, the key strategy for crafting win-win outcomes was the trade-off or logrolling principle (Froman and Cohen, 1970). The price negotiators settled on provided a measure of economic outcomes, and relational outcomes were measured using the relationship subscale of the subjective value inventory (SVI; Curhan et al., 2006), which captures negotiators’ impression of their relationship, trust and foundation for working together in the future. Example of these items include “What kind of ‘overall’ impression did your counterpart(s) make on you”, “How satisfied are you with your relationship with your counterpart(s) as a result of this negotiation” and “Did the negotiation build a good foundation for a future relationship with your counterpart(s)?”

The key hypothesis was that dyads composed of negotiators high in trait creativity would be more likely to craft value-added trade-offs, thereby increasing joint profitability. Results revealed there was a positive correlation between negotiators’ creativity and joint gains, but this correlation was not significant. There was, however,
a significant negative correlation between creativity and the buyers’ relational satisfaction, such that for dyads with highly creative negotiators, the buyer tended to have lower relational outcomes (e.g. a more negative impression of their relationship with the other party) and sellers’ creativity score had an even stronger effect on buyers’ relational outcome than the buyers’ own creativity. A similar negative effect of creativity on sellers’ relational outcomes was observed although not significant.

Previous research suggests negotiators in a high-power role tend to affect negotiation outcomes more than negotiators in a low-power role (Allred et al., 1997; Anderson and Thompson, 2004). In this study, the seller had a better alternative to a negotiated agreement than the buyer and thus was in a higher-power position; this helps explain why the sellers’ creativity scores were a stronger predictor of the buyers’ relational outcome.

Schei (2013) predicted that trait creativity would interact with positive arousal to positively affect joint outcomes and tested two competing interaction hypotheses. One hypothesis predicted that the positive association between creativity and joint gains would be stronger for low values of positive arousal. The alternative hypothesis predicted the relationship between creativity and joint gains would be stronger for high values of positive arousal.

As a measure of trait creativity, participants first completed a modified version of the creative personality scale (CPS; Gough, 1979), which asks participants to select adjectives from a list. Some of these adjectives indicate a creative personality (e.g. clever and imaginative), and others are more indicative of a non-creative personality (e.g. cautious and conservative). They also completed items from the positive and negative affect schedule (PANAS; Watson et al., 1988) and from Russell (1980) as a measure of positive arousal. Participants then engaged in a two-party multi-issue negotiation task that allowed for integrative agreements to be achieved through logrolling and contingent agreements. After the negotiation task, negotiators individually completed a post-negotiation questionnaire to assess two process measures: problem-solving (“I examined ideas from both sides to find a mutually optimal agreement”) and trust (“To which degree did you trust the other party). Two additional process measures – climate (“The process was characterized by a good climate between the parties”) and information exchange [“The process was characterized by information exchange about interests/priorities (what was important to us)”] – were also measured at the individual level, but negotiators were asked to discuss the questions with each other before indicating their individual response.

Consistent with the hypothesis, dyadic creativity was positively associated with joint gains. There was also a significant interaction of creativity and positive arousal on joint outcomes, such that the creativity-joint gain relationship was particularly high when dyads were high in positive arousal but not when they were low in positive arousal. No significant differences were observed for the negotiation process measures (e.g. problem-solving and trust). As a result, a follow-up analysis was conducted of the interaction and contents of the negotiation. The key question was whether more specific negotiation behaviors – not captured in the self-report measures – would provide insight for how creativity influences negotiation outcomes. About half of the dyads were randomly assigned to be audio recorded, and for the coding analysis, the 10 most creative and 11 least creative dyads were compared. Consistent with previous research (Kern et al., 2005; Weingart et al., 1996), 14 behaviors were examined, including whether
negotiators made single-issue offers and asked or gave information about their priorities. Results of the interaction analysis revealed that high creativity dyads made fewer single-issue offers but asked for more information about the other party’s priorities. They also used words, such as “want” and “important” with greater frequency than low creativity negotiators and mentioned the word “offer” less. This study provides further evidence for a positive link between trait creativity and joint outcomes.

In summary, the relationship between trait creativity and negotiation performance has not been empirically measured in a large number of studies, and the results of the existing studies are somewhat mixed. Specifically, the Kurtzberg (1998) study found a positive relationship between individual trait creativity and joint outcomes but not between dyadic creativity and joint gains. The Elfenbein et al. (2008) study indicated a positive association between individual trait creativity and dyads’ value creation, although it did not find a significant relationship between creativity and joint gains. Third, the De Pauw et al. (2011) study did not find a significant effect of dyadic trait creativity on joint outcomes, but the Schei (2013) study did. To be sure, trait creativity is a complex multifaceted construct (Amabile and Mueller, 2008; Isaksen et al., 1993; Mumford et al., 1997). Part of the reason for the differing empirical results may be attributed to the creativity measures themselves. One question is whether creativity tests, such as the TTCT (Torrance, 1966/1990), and scales, such as the CPS (Gough, 1979), provide an adequate assessment of the dimensions of creativity that are linked to negotiation outcomes. Some scholars have cautioned that the strong correlation between fluency, flexibility and originality signal they are not independent constructs and could be meaningfully represented by a single score (Chase, 1985; Dixon, 1979; Heausler and Thompson, 1988; Hocevar, 1979). Indeed, several independent psychological factors contribute to one’s creativity, and this may manifest in negotiation. For example, one could imagine how fluency helps negotiators explore alternatives, but that leaves open the question of the creative dimension(s) that help negotiators succeed at value distribution. For these reasons, Torrance (Treffinger, 1985) and Cropley (2000) both cautioned that several tests should be used in assessments of trait creativity (at least two; Johnson and Fishkin, 1999), and future research should heed this call by including multiple measures in assessments of negotiators’ trait creativity.

Creative thinking and negotiation outcomes
Social and organizational psychologists have a long tradition of cleverly and consistently manipulating constructs, such as creativity, to measure their direct impact on outcome measures of interest, such as negotiation performance. Manipulating constructs enables researchers to establish causality. Consider, for example, evaluations of perspective taking and its impact on negotiation performance. One method to test the question of whether perceptive tasking might influence integrative negotiation would be simply to measure negotiators’ perspective-taking abilities (Neale and Bazerman, 1983) by using a scale, such as that developed by Davis (1980). However, a more theoretically and empirically powerful way of examining this relationship is to manipulate that construct. For example, Galinsky et al. (2008), manipulated perspective tasking by asking buyers in a negotiation to take the perspective of the seller; try to understand what they are thinking; and consider their interests and purposes for making the sale. In doing so, they were able to establish causality, which is not afforded using individual difference measures.
For these reasons, it is not surprising that social and organizational psychologists have undertaken a similar empirical approach to examine how creativity affects negotiated outcomes, and manipulating creativity helps overcome the limitations of tests that evaluate creativity as an individual trait. Certainly, creative motivation and skills are both necessary for creative achievement in addition to innate ability (Torrance, 1966/1997, 1998; Torrance and Ball, 1984). Thus, it is helpful to consider how creative thinking skills may be manipulated, yet the key challenge is how to do so.

*Divergent and convergent thinking*

To examine the relationship between creativity and negotiation, it is plausible to consider creativity as a cognitive activity that might activate or prime certain behaviors that could be conducive for different negotiation processes. Consider an important distinction in creative thinking: divergent and convergent thinking (Guilford, 1959, 1967). Divergent thinking is commonly referred to as thinking “outside of the box” and involves developing several, original ideas and solutions for a given problem. An example of a divergent task is that used in the TTCT (Torrance, 1966/1990), which prompts people to generate as many unusual uses as they can for a common household item, such as a cardboard box. This task is commonly referred to as the Alternative Uses or Unusual Uses Task (Guilford, 1959, 1967). Another task referred to as Instances (Wallach and Kogan, 1965) asks people to think of as many possible items that share a component or have a similar characteristic (“Name all the things with wheels that you can think of”). The extra thumbs task (Bouchard and Hare, 1970) is a third example; in this exercise, people consider the potential ramifications of everyone in the world having an additional thumb. Divergent thinking expressly emphasizes quantity and encourages free-wheeling – the more ideas one generates, the better.

Conversely, convergent thinking is a type of creative thinking that elegantly proposes a single-best demonstrable solution to a problem. In contrast to divergent thinking, which focuses on volume, convergent thinking emphasizes quality and requires the problem-solver to identify one solution for a problem that is considered to be correct (Guilford, 1959, 1967). There are several empirical examples of convergent creative thinking. Perhaps the most classic examples are “Eureka!” tasks that have a single-best solution and usually result in an “Aha!” moment. The nine-dot problem previously discussed (as cited in Bazerman and Neale, 1992) is a well-known example of a “Eureka!” task. Another example is the Duncker (1945) candle problem; in this task, people are shown three items – a candle, book of matches and box of thumbtacks – and asked to determine how to affix a lit candle to a wall, such that the wax does not drip on the table below it. The solution is to empty the box of thumbtacks; place the candle inside it; tack the box to the wall; and light the candle using a match. A third convergent task is the remote associates test (RAT; Mednick, 1962; Mednick and Mednick, 1967), which gives people triads of words, such as “gold, stool, and tender”, and asks them to think of a word associated with all words in each triad (in this example, the correct answer is “bar”). Furthermore, consider the convergent problem-solving required in the two-string problem (Maier, 1970). In this task, people are shown a picture of two strings hanging from a ceiling and told that you cannot reach one string while holding onto the other. There are various objects placed around the room, but none of them can be used to grab the other string. The task is to identify how to hold both strings at the same time. The solution is to tie one of the objects to the first string and swing it as a pendulum.
Grab the second string and while holding onto it, grasp the first string when it swings toward you (Lavric et al., 2000).

Creative thinking tasks are sometimes consciously solved and other times solved during periods of non-conscious reasoning, which is referred to as the incubation effect (Ellwood et al., 2009; Fulgosi and Guilford, 1968; Wallas, 1926). The idea is that a solution is more easily discovered during interrupted v. uninterrupted work (Vul and Pashler, 2007). In empirical investigations of this effect, people are posed with a divergent task, such as Unusual Uses (Baird et al., 2012; Snyder et al., 2004), or convergent task, such as the RAT (Vul and Pashler, 2007) and given time to complete it. They then encounter some form of interruption, such as a break, during which they might be asked to complete an unrelated task, work on a cognitively demanding task or do nothing. As to whether such interruptions enhance creativity remains a source of theoretical debate though as empirical research has yielded equivocal results (Dijksterhuis and Meurs, 2006; Smith and Blankenship, 1989; Yaniv and Meyer, 1987); specifically, divergent tasks have yielded more robust incubation effects than convergent tasks (Ellwood et al., 2009; Sio and Ormerod, 2009; Vul and Pashler, 2007). A meta-analysis suggested the benefits of incubation (e.g. for creative problem-solving) are maximized when people engage in an undemanding task, such as reading, during a period of interruption than when they complete a cognitively demanding task or just rest (Sio and Ormerod, 2009).

In summary, both convergent and divergent thinking and problem-solving have been systemically studied in the cognitive and social psychological literatures, and negotiation scholars agree that both types of thinking are important for crafting integrative agreements. On the one hand, in most empirical investigations of negotiation, there exists a single best combination of issues and alternatives that will maximize both parties’ collective outcomes (e.g. the sisters and the orange problem; Follett, 1940) and lie along the Pareto-optimal frontier (Nash, 1950). Consider a classic multi-issue negotiation with multiple options per issue used in much research on integrative bargaining, commonly referred to as the AEI task (Carnevale et al., 1981; Kimmel et al., 1980; Pruitt and Lewis, 1975). In the AEI task, two negotiators have opposing preferences across three issues. One party wants Option A for all three issues, and the other party wants Option I for all three issues. If they reach a middle ground and agree to Option E for each issue, they can reach a tolerable compromise (analogous to the sisters slicing the orange in half). What is not obvious is that one negotiator is most concerned about the first issue, and the other negotiator is most concerned about the third issue. Thus, an elegant solution involves one party achieving his or her most valued terms on the first issue and the other negotiator achieving his or her most desired terms on the third issue. The integrative solution, AEI, thus gives the one party his most preferred terms on the first issue and the other party his most preferred terms on the third issue – analogous to the sisters allocating the juice and rind, based on interests. The fact that there is only one solution that fully maximizes the joint value in this negotiation suggests that negotiation may be best modeled as a convergent creative thinking task.

At the same time, divergent exploratory thinking is also important in negotiation. First and foremost, although laboratory negotiations generally involve highly structured tasks with defined alternatives, real-life negotiations often involve ill-structured tasks with alternatives that may be reconfigured. Such dynamic contexts
may allow more room for creative problem-solving than controlled experimental environments. A second reason is linked to the empirical observation that exploring alternatives and considering multiple offers benefits negotiation performance. Several research investigations have revealed a positive association between the number of offers and counteroffers made and the likelihood of reaching integrative agreement (for review, see Thompson, 2015). Known as “heuristic trial and error”, the idea is that a relentless exploration of several possible combinations and alternatives will reveal a superior solution (for review, see Pruitt and Lewis, 1975). Thinking “outside of the box” helps negotiators identify creative ways for reaching agreement, and negotiators who make multiple offers simultaneously are more likely to discover win–win optional agreements (Hyder et al., 2000; Weingart et al., 1993). Delaying the timing of the first offer can also lead to more creative agreements by facilitating more information exchange (Sinaceur et al., 2013).

An example highlighting the importance of divergent thinking in negotiation is related to contingency contracts (Lax and Sebenius, 1986). Negotiators often have differing views about future events, such that an elegant solution can be reached by capitalizing on negotiators’ differing views. Consider, for example, the 1997 negotiation between the owners of the Chicago Bulls basketball team and their controversial, but star player, Dennis Rodman (as examined by Bazerman and Gillespie, 1999). Rodman was notorious for absences and his unpredictable behavior, and the team paid him close to $3 million in one season for games he did not play in because his contract was guaranteed. In hopes to avoid such an arrangement, the Bulls negotiated a new contract, such that Rodman could earn up to $10.5 million in only one season, but only $4.5 was guaranteed; the remaining amount was contingent on his participation and performance in various games. This proved to be a win–win outcome for both Rodman and the team by reducing the team’s risk of employing Rodman and incentivizing Rodman to perform. By the end of the season, Rodman had collected almost all of the $10.5 million. The key in contingent contracts is that there exists an infinite number of ways that contingencies can be arranged; a single best solution does not exist. Possibilities for creating arrangements such as contingent contracts suggest divergent thinking is also an essential skill for succeeding in negotiation and creating value as much as convergent thinking is necessary for claiming it.

Creative thinking and joint gains
Researchers agree creative cognition may be prompted through simple exercises (Coskun, 2005); thus, creative tasks may be used for creative training and provide one method for manipulating creative thinking. A reasonable hypothesis might be that people who receive creative training will be more effective negotiators than people who do not receive creative training. ogilvie and Simms (2009) examined the relationship between creative training and negotiation performance[3]. Participants (graduate accounting students) were told they would participate in an accounting negotiation and then attended one of two workshops: creativity training or traditional decision-making. In the creativity training workshop, people were instructed to take a creative approach to the negotiation in line with Osborn’s (1957) cardinal rules. For example, they were told to “be imaginative”, “combine ideas to come up with better ideas” and “look for new possibilities”. People in the traditional decision-making workshop were trained by the traditional tenets for succeeding in negotiation; for example, they were told to “be
systematic”, “weigh the criteria” and “try to find the best solutions to the problem”. Participants then completed a five-party, accounting negotiation exercise that required parties to decide on a cost allocation scheme. Two independent judges evaluated the effectiveness of the negotiators’ agreements in terms of how novel and applicable they were.

As hypothesized, negotiators who received creativity training created more effective solutions than negotiators who received the traditional decision-making training. This result provides initial evidence that creativity training may have a positive effect on negotiation performance and is consistent with previous research. Indeed, a meta-analysis (Scott et al., 2004) found creative training positively affects performance outcomes, and that effect may be maintained over time.

Given the importance of both types of creative thinking in negotiation, it seems plausible that having both a divergent- and convergent-thinking negotiator at the negotiating table may be even more beneficial for reaching integrative agreement than general training in creativity. Using the conceptualization of negotiation as either a convergent or divergent-thinking task, we examined creativity as a causal factor in predicting negotiation performance. In our investigation, we manipulated negotiators’ creative thinking via a creativity task prior to a two-party negotiation (Wilson and Thompson, 2014). We hypothesized that because both convergent and divergent thinking are arguably important for creating integrative agreements, dyads with both skills might be especially well-positioned to achieve higher joint gains.

We first instructed people to engage in a creative thinking task immediately before a negotiation. Some people were trained in convergent thinking and given items from the RAT (Mednick, 1962; Mednick and Mednick, 1967) to complete. Others were trained in divergent thinking and given an alternative uses task (Guilford, 1959, 1967). We then constructed three types of negotiation dyads. Some dyads were composed of negotiators who had both completed the convergent thinking task (symmetric-convergent dyads), other dyads were composed of negotiators who had both completed the divergent task (symmetric-divergent dyads) and another group was composed of negotiators who had received different creativity tasks (asymmetric convergent-divergent dyads). Participants then completed a two-party multi-issue negotiation task with non-obvious integrative agreement that involved identifying compatible issues and trading off differentially valued issues (logrolling). As hypothesized, dyads that were composed of people who had completed different creative thinking exercises achieved higher joint gains than symmetric creative thinking dyads. These results support the notion that both types of creative thinking are essential skills in negotiation, and the presence of both skills at the negotiating table enhances joint gains.

Nevertheless, the mechanism by which asymmetrically trained negotiators reached a non-obvious, optimal solution is a focal question. Understanding the means by which creative thinking might affect the negotiation process and negotiators’ behavior is, thus, critical. Most researchers consider negotiation to be a dance, in which negotiators form impressions of one another, develop or fail to develop trust and generate solutions (Adair and Brett, 2005; Raiffa, 1982). Integrative agreements can be reached in at least one of two ways: through heuristic trial and error and information exchange (Pruitt and Lewis, 1975). With regard to the former, Pruitt and Lewis (1975) suggested negotiation parties may eventually stumble on or craft an elegant solution by exploring a number of possible solutions. In their study, participants engaged in the AEI negotiation task
previously described. Irrespective of experimental conditions, results revealed that dyads who achieved more integrative agreements varied their proposals, discussed proposals to gauge the other party’s reaction and conceded in more systematic ways. Pruitt and Lewis (1975) coined this productive process of fashioning proposals and strategically using concessions as heuristic trial and error.

A similar strategy that benefits negotiation is information exchange, such that negotiators who request and provide truthful information about their interests are more likely to reach more integrative agreements. Research investigations clearly point to a direct causal relationship between information-sharing and joint gains (Pruitt and Lewis, 1975; Thompson, 1991; Weingart et al., 1993). Whereas this result may seem obvious, the problem is that negotiators are typically reluctant to share information, lest it put them at a strategic disadvantage. Indeed, it should not be assumed that negotiators who reach Pareto-optimal agreements have trusting relationships, rather distrust may develop when parties are suspicious of each other’s motives (Sinaceur, 2010) miscommunicate during the negotiation or engage in deception (Schweitzer et al., 2006). Moreover, negotiators often have an incentive to mislead or misrepresent their interests because, in some cases, it can be an effective way to obtain favorable individual outcomes (O’Connor and Carnevale, 1997). Again, these dynamics allude to negotiations’ competitive side.

In summary, social psychological and organizational behavioral scholars often aim to examine the causality between two (or more) variables and manipulate constructs for probing causality. Although negotiation scholars have established the importance of both divergent and convergent thinking in promoting integrative agreement, only a small body of research has actually manipulated creative thinking within a negotiation setting. Opportunities exist for empirical investigations to analyze further the relationship between divergent and convergent thinking and negotiation performance, as well as the mechanisms through which asymmetrically trained negotiators achieve more integrative outcomes.

Creativity and negotiation research: the next generation

Here, we outline three possible directions for how the creativity and negotiation literatures might further enlighten each other. One area concerns communication media and how they may enhance or detract idea generation and negotiation. Another area focuses on whether the strategies that improve creativity (and idea generation in particular) also improve negotiation performance. A third research area centers on morality and social motivation.

Communication media

A robust finding in the creativity literature is that electronic brainstorming (EBS) produces more and better ideas than face-to-face brainstorming. The explanatory reason for this concerns production blocking (Diehl and Stroebe, 1987, 1991; Lamm and Trommsdorff, 1973), or the observation that when people interact face-to-face, a given person may be prevented (blocked) from sharing ideas because another is speaking. Indeed, groups generate more, and better, ideas when they are engaged in EBS than when they interact face-to-face, presumably because individuals can contribute ideas when they want to without competing for the floor (Gallupe et al., 1991). Typically, EBS involves the use of computers to allow members to interact and exchange ideas and
helps teams overcome faulty group processes, such as social loafing (Karau and Williams, 1993; Kerr and Bruun, 1981), production blocking (Diehl and Stroebe, 1987, 1991; Lamm and Trommsdorff, 1973) and evaluation apprehension (Cottrell, 1972; Geen, 1981; Zajonc, 1980) by allowing team members anonymity and equal participation (for review, see Thompson, 2013, 2014). Indeed, face-to-face idea generation is not advisable when compared with EBS, and research has suggested that groups are well-served to generate ideas independently (alone) before moving into a group (i.e. the nominal group technique; Delbecq and Van de Ven, 1971).

Given the strong prescriptive advice for people to use EBS and eschew face-to-face group interaction when generating ideas, the prescriptive advice offered by negotiation theorists is diametrically opposed. Namely, most negotiation scholars advocate for parties to meet and interact face-to-face and actually caution against e-mail or other forms of electronic communication. Several studies and programs of research have found that when negotiators communicate via e-mail, text or written message, the incidence of impasse increases and distrust magnifies. Moreover, when agreements are reached, they tend to be of lower quality (for review, see Thompson and Nadler, 2002). The explanatory mechanism often concerns trust and rapport, which are thought to be highly desirable for integrative negotiation but are difficult or impossible to establish when negotiators are prevented from face-to-face contact. E-negotiators often also succumb to a number of biases that inhibit their joint outcomes, including the temporal synchrony bias (the tendency to ignore the disadvantages of e-negotiation and behave as if it is a negotiation over a synchronous channel), the squeaky wheel bias (the tendency to have an aversive emotional style), the burned bridge bias (the tendency to use risky behaviors and even threats to advance individual outcomes) and the sinister attribution bias (the tendency to make dispositional, and even diabolical, attributions of the other party’s behavior). Although e-negotiations may have benefits, such as reducing the salience of status differences, and thereby increasing equal participation (Siegel et al., 1986), negotiations conducted face-to-face are considered superior and more ideal.

Given the negotiation and creativity literatures seem to be at odds with one another – physical separation allows idea-generating groups to thrive but drives a wedge in the negotiation table, it is worthwhile attempting to resolve and align this seemingly disparate advice. If negotiators must conduct an e-negotiation, one suggestion might be for negotiators to interact in a synchronous fashion first (e.g. via phone or face-to-face). Indeed, one investigation compared negotiators who interacted in a five-minute pre-negotiation phone call to those who did not speak via phone (Morris et al., 2002). The brief phone call was considered a form of “schmoozing”. Both groups then engaged in a week-long e-mail-only negotiation. The results were striking. Schmoozers felt more rapport, established a better working relationship and impassed at a lower rate than nonschmoozers. Future research might consider other hybrid forms that capitalize on both the benefits of EBS for idea generation and face-to-face communication in negotiation.

Best practices for idea generation

Another area for creativity-negotiation research concerns whether the best practices that improve team creativity are as beneficial in negotiation. For example, creativity scholars and practitioners advise teams to use strategies such as the following to
strengthen their creativity: set high-quantity goals, hire a facilitator, take brief breaks, engage in brainwriting and work with moderate background noise (for reviews, see Paulus and Nijstad, 2003; Thompson, 2013, 2014). Given the relationship between creativity and negotiation, this begs the question of whether such strategies will also enhance negotiation outcomes.

On the surface, some of the best practices espoused by creativity scholars seem to be consistent with the prescriptive advice offered to negotiators. For example, negotiators who engage in a protracted negotiation dance (Adair and Brett, 2005) and heuristic trial and error (Pruitt and Lewis, 1975) generate more integrative agreements than negotiators who do not make many offers and systematic concessions. The process of making and receiving offers provides a means by which negotiators can infer the interests and goals of the other party, thereby allowing them to craft offers that take advantage of differences in interests (Adair et al., 2001). This might suggest that encouraging negotiators to explore high quantities of alternatives would be good advice.

Another strategy creativity scholars encourage is to hire a facilitator. A trained facilitator can help teams stay on track and make sure they adhere to brainstorming rules; as a result, facilitators may help increase teams’ performance to that of nominal groups (Oxley et al., 1996). Note that nominal groups are a type of control group consisting of people that do not interact (Taylor et al., 1958). In empirical investigations, brainstorming teams have time and again been shown to generate fewer ideas in terms of both quantity and quality than nominal control groups (Bouchard and Hare, 1970; Paulus et al., 1995).

In the negotiation literature, scholars discuss two kinds of third-party intervention: mediation and arbitration. Both of these occur when negotiators may be on the brink of impasse, but the alternative to not reaching agreement is costly (consider how war may result if a settlement is not reached in some international negotiations, for example). Mediators serve the role of helping negotiators reach a voluntary settlement. They allow parties to make concessions without appearing weak (Ross and Conlon, 2000) and may help uncover possibilities for integrative agreement (McEwen and Maiman, 1984). Although the possibility of settlement given mediation is high, it is not guaranteed. Conversely, arbitrators hold a hearing in which negotiators state their case and provide supporting evidence (Ross and Conlon, 2000). After the hearing, the arbitrator determines the settlement and a settlement is, thus, guaranteed. However, the mere possibility of this third-party determined decision often motivates negotiators to reach a settlement voluntarily (Farber and Katz, 1979).

The involvement of third parties is essentially discussed in the negotiation literature as a possibility to “save” agreement (near the end of negotiations). In contrast, creativity scholars encourage teams to use facilitators at the front-end of idea generation. In linking these two literature, it would be interesting to consider whether facilitators might be used in the beginning of negotiations to help negotiators adhere to brainstorming rules and improve their exploration of alternatives. This may lower negotiators’ inhibition during the exploration process and encourage free-wheeling. Only after this process might negotiators be encouraged to narrow down the alternatives and resume their competitive approach.

A third strategy strongly advised by the creativity literature is to engage in brainwriting, or the simultaneous generation of written ideas (Geschka et al., 1976/1977; Johanson, 1978; Paulus and Yang, 2000). Groups who write down their ideas are freed
from the burden of having to listen to others (thereby, risking remembering their own ideas), and they are able to generate ideas without the immediate fear of criticism or censure. Brainwriting also helps overcome faulty group processes (Paulus and Yang, 2000), such as production blocking (Diehl and Stroebe, 1987, 1991; Lamm and Trommsdorff, 1973). Future empirical investigations might consider whether brainwriting (and the other strategies encouraged by creativity scholars) might well serve negotiators seated at the bargaining table.

Morality and social motivation
According to Lax and Sebenius (1986), the negotiator’s dilemma centers on the competing desires for pursuing self-interest and reaching mutual agreement with the other party. Given that negotiation is a mixed-motive enterprise involving competition and cooperation, there is temptation for negotiators to not only be self-interested but perhaps also to lie or deceive the other party (Lewicki, 1983; Robinson et al., 2000). Several types of unethical tactics that negotiators use to advance their own outcomes have been examined, including misrepresentation (O’Connor and Carnevale, 1997; Tenbrunsel, 1998) and deception (Kelley et al., 1967; Lewicki, 1983). Conversely, only a small body of research has explored how creativity may influence such questionable behaviors. In considering the potential for future research, we focus on the few investigations of creativity and unethical behavior and consider the research questions they motivate.

In one study, researchers hypothesized that creativity is positively associated with dishonesty in the context of ethical dilemmas and increases moral flexibility or people’s ability to justify their unethical actions (Gino and Ariely, 2012). In one experiment, participants completed three tasks as an assessment of trait creativity and two tests of intelligence. They then completed three tasks – a perception task, a problem-solving task, and a multiple-choice task – that each provided cheating opportunities. For example, in the multiple-choice task, participants answered 50 questions for which they could earn $0.10 for each correct answer and were told they would transfer their answers to a bubble sheet. They were then informed that the experimenter had accidentally marked the correct answers on the bubble sheet; participants were supposed to recycle the sheet by instead marking their actual responses and submit the sheet for payment. In this way, the opportunity to cheat was clear.

Consistent with the hypothesis, trait creativity was positively and significantly correlated with dishonesty. Likewise, in follow-up experiments, people who were primed to think creatively (with a scrambled sentence test) also behaved more dishonestly in subsequent tasks than people in a control condition, and creativity was found to increase people’s self-serving justifications. These results provide evidence that although creativity is considered to be a largely positive attribute, it may have a dark side. Nevertheless, this study motivates at least two research questions. First, the experiments analyzed the correlation between trait creativity and dishonesty and the influence of a creative mindset on cheating. It is important to consider how creative thinking may be a causal factor in unethical actions, and future research should disentangle the effects of divergent v. convergent thinking. Second, future investigations might consider how creative thinking may increase questionable behaviors, such as misrepresentation and deception, specifically in a negotiation context; the mechanisms that may enhance or attenuate that effect; and the
ramifications of those behaviors (e.g. how they affect negotiators’ trust and working relationship). Understanding this may, for example, provide insight regarding the mechanisms by which asymmetrically trained negotiators achieve higher joint gains (Wilson and Thompson, 2014).

Another study suggests a reverse relationship as well: dishonesty may also increase creativity (Gino and Wiltermuth, 2014). In one experiment, participants first completed the Duncker (1945) candle problem as a baseline measure of creative performance. They then completed a filler task, engaged in a time-pressured problem-solving task (with an obvious opportunity to cheat) and completed items from the RAT (Mednick, 1962; Mednick and Mednick, 1967). Results revealed that cheaters solved more items correctly on the RAT than non-cheaters, even when baseline creative performance was controlled for. Other experiments further suggested people who act dishonestly feel less constrained by rules, which frees their creativity.

The extant research has largely considered negotiation outcomes to be an outcome variable and creativity (whether measured or manipulated) to be a predictor, yet the Gino and Wiltermuth (2014) study suggests negative behaviors may, in turn, have the positive consequence of enhancing creativity. This paves the way for future research; given that unethical behaviors, such as dishonesty, often emerge in negotiation, it is helpful to consider the consequences (and benefits) of those behaviors. Indeed, research has suggested that behaviors like misrepresentation may lead to higher joint outcomes (O’Connor and Carnevale, 1997), and understanding further the relationship between unethicality and creativity may provide insight regarding the mechanisms through which negative behaviors positively influence negotiation performance.

Beersma and De Dreu (2005) examined whether negotiators’ social motivation would influence their performance in a post-negotiation creative task. In general, people with a pro-social motivation perceive the negotiation as a cooperative game and value the notions of harmony and fairness. They also view cooperation in a negotiation as morally appropriate and competitive thinking as immoral (Kelley and Thibaut, 1978; Liebrand et al., 1986; Van Lange et al., 1998). The authors’ hypothesized that negotiators with pro-social motives would generate more useful but less original ideas in a post-negotiation creativity task than negotiators with pro-self motives. The idea is that a certain level of conflict and competition positively affects both the quality and quantity of ideas generated by brainstorming groups (Nemeth and Staw, 1989; Munkes and Diehl, 2003); thus, pro-self motives may well-serve negotiators on the divergent aspects of a subsequent creativity task. Conversely, coordination is necessary in decision-making and execution (Hackman et al., 1967; McGrath, 1984), so pro-social motives may benefit performance on convergent tasks.

In one experiment, participants first completed a three-party, multi-issue negotiation task that allowed for integrative agreements to be achieved through logrolling. Some groups of negotiators were told it was important that the group as a whole performed well, and the members of the group that earned the highest gains would receive a monetary bonus (pro-social motives). Another group of negotiators were told it was important for them to perform well individually, and the three individuals with the highest gains would receive a monetary bonus (pro-self motives). After the negotiation, participants then completed a creativity task with their negotiation group and were asked to design slogans for an advertisement campaign.
As part of a post-negotiation questionnaire, participants completed subscales of the Dutch Test for Conflict Handing measure (DUTCH; Van de Vliert, 1997), in which they were asked to rate their group members’ behavior during the negotiation – both integrative (“Did this person try to find a solution that would be in everybody’s interest”) and distributive (“Did this person try to impose his or her own will upon you”). Several raters blind to the experimental conditions and hypotheses each rated six of the slogans based on their usefulness and originality. Each slogan was rated by three raters, and the scores were averaged across the three raters.

As predicted, negotiators in the pro-social groups created more useful slogans than did pro-self groups. The pro-social groups also tended to create less original slogans than pro-self groups although this trend was only marginally significant. Stronger support was found for these hypotheses in a second experiment, such that pro-social groups outperformed pro-self groups in a post-negotiation convergent task, but pro-self groups had higher performance than pro-social groups in a divergent task. These results suggest that negotiators’ social motives influence groups’ performance on post-negotiation creativity tasks. One avenue for future research is to consider the influence of negotiators’ social motives on individuals’ post-negotiation creativity as well. More generally, scholars should also further investigate how creativity may be an outcome of negotiation.

Conclusion
Negotiation scholars have long espoused the advantages and importance of creative problem-solving in negotiation, yet empirical investigations of creativity’s influence on the negotiation process and outcomes is relatively sparse. In this review, we considered two general streams of empirical research at the intersection of the creativity and negotiation literature:

1. the relationship between trait creativity and joint outcomes; and
2. the influence of creative thinking (as a causal factor) on negotiation performance.

We also discussed future directions for the next generation of research, considering communication media, best practices for idea generation, morality and social motivation. We challenge scholars to heed our call and further discover the integrative potential at the intersection of negotiation and creativity research.

Notes
1. We conducted literature review of management, organizational behavior and psychology abstracts using keywords creativity and negotiation. We excluded articles that were not empirically based.
2. Here, we limit our discussion to the authors’ examination of creativity.
3. It is our courtesy to spell Dr dt ogilvie’s name using the lowercase because she prefers it that way.

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