



Vlerick Leuven Gent Working Paper Series 2010/04

**THE EFFECT OF NEGOTIATOR CREATIVITY ON NEGOTIATION OUTCOMES
IN A BILATERAL NEGOTIATION**

ANN-SOPHIE DE PAUW

AnnSophie.DePauw@vlerick.be

DAVID VENTER

David.Venter@vlerick.be

KOBUS NEETHLING

**THE EFFECT OF NEGOTIATOR CREATIVITY ON NEGOTIATION OUTCOMES
IN A BILATERAL NEGOTIATION**

ANN-SOPHIE DE PAUW

Vlerick Leuven Gent Management School

DAVID VENTER

Vlerick Leuven Gent Management School

KOBUS NEETHLING

South-African Creativity Foundation

Contact:

Ann-Sophie De Pauw

Vlerick Leuven Gent Management School

Tel: +32 09 210 97 10

Fax: +32 09 210 97 57

Email: AnnSophie.DePauw@vlerick.be

ABSTRACT

The potential implication of creativity upon negotiation remains to date ill researched. The aim of this study is to fill this gap by examining if creative negotiators are able to achieve more successful outcomes in a negotiation context with integrative potential. As such we want to contribute to the unlocking of the 'black box' of bargaining behaviours.

We obtained creativity scores from 70 participants, who performed a two-party, multi-issue negotiation in 35 dyads. This negotiation led to economic and relational negotiation outcomes. The use of creative skills by negotiators was hypothesised to positively affect both classes of negotiation outcomes. Results indicated no significant effect of negotiators' creativity on economic negotiation outcomes. We observed a negative effect of negotiators' creativity on relational negotiation outcome for the buyer, whereby creativity of the seller added significantly more to the variance in relational outcome than creativity of the buyer. For the relational negotiation outcome of the seller, we found the same negative tendency, though no significant effect of negotiators' creativity. Our findings extend the understanding of the relationship between negotiators' creativity and negotiation outcomes, which is highly underemphasized in current research. Further research should identify which aspects of creativity are crucial to negotiators and determine how they can be adequately measured. The issue of interaction between negotiator's creativity and situational variables should also be addressed, as it likely determines the effect of creativity on negotiation outcomes.

Keywords: creativity, dyads, negotiation outcomes

INTRODUCTION

Negotiation increasingly gains importance as a popular and constructive way to do business, to settle international disputes, and to manage interpersonal conflict (De Dreu, Weingart, & Kwon, 2000). It can be defined as the communication between two or more parties with divergent interests in order to reach an agreement (Pruitt, 1981). Negotiation is a pervasive and important form of social interaction and is essential for anyone who must interact with other people to accomplish their objectives (Thompson, 1990).

It is widely assumed that *personal characteristics* of negotiators are highly relevant for the understanding of negotiation processes and outcomes (Barry & Friedman, 1998). Recent research firmly attests that about half of the variance in negotiation performance can be attributed to individual differences (Elfenbein, Curhan, Eisenkraft, Shirako, & Baccaro, 2008).

Since the essence of negotiation involves the ability to move beyond existing ideas and create alternatives, it inherently relates to individual negotiator differences in creative thinking. The strong tendency amongst negotiators to fixate on the competitive aspects of negotiation, however, all too often leads to the creative aspect of negotiation being largely ignored. Even those negotiators who aim at a win-win situation often fail to appreciate that this approach requires the parties to work together and cooperatively explore all possibilities before selecting an approach that is most likely to deliver a mutually beneficial agreement (Thompson, 2005).

The potential implication of creativity upon negotiation, however, remains to date ill researched, although the negotiation field has developed rapidly (Bazerman, Curhan, Moore, & Valley, 2000; Kramer & Messick, 1995). The aim of this study is to fill this gap by examining if creative negotiators are able to achieve more successful results in negotiation, and as such we want to contribute to the unlocking of the 'black box' of bargaining behaviours.

THEORETICAL FRAMEWORK AND HYPOTHESES

In this section we will give a short overview of our conceptions of creativity and negotiation and how both are inherently linked to one another. We conclude with the delineation of our hypotheses.

Creativity

Creativity is mostly defined as the production of novel, appropriate ideas in any realm of human activity (Amabile, 1996), although a multiplicity of definitions of creativity can be found in the field. The early attempts of Torrance (1966) to define creativity for research purposes centered on problem-solving and described that “creativity thinking takes place in the process of sensing difficulties, problems, gaps in information, missing elements; making guesses or formulating hypotheses about these deficiencies; testing and retesting them; and finally in communicating the results” (p. 6). The term ‘creative thinking abilities’, as used by Torrance, refers to “that constellation of generalized mental abilities that are commonly presumed to be brought into play in creative achievements” (p.1). As such, creativity can be considered as a multidimensional concept (Kim, 2006b), existing of different components.

Guilford (1959) and Torrance (1966) distinguished four components of creativity: (1) *fluency*: the number of different ideas generated (e.g., from a glass you can drink water, orange juice, tonic,...); (2) *flexibility*: the number of different categories of ideas present, or the number of ideological shifts in thinking (e.g., you can use a glass to drink, you can use it as a trap for insects, you can eavesdrop with a glass by holding it against a door,...); (3) *originality*: the rarity, unusualness of each idea generated; and (4) *elaboration*: the addition of pertinent details.

As the current field of creativity emerged largely due to the pioneering work of Guilford and Torrance (Sternberg, 2006), we integrated their conceptions and operationalisations of creativity in our research design.

Negotiation

Negotiation appears to involve primarily the exchange of tangible goods and services, yet it also leaves an inherently psychological imprint on the individuals involved (Curhan, Elfenbein, & Xu, 2006). Historically, the negotiation field has been dominated by a focus on *economic outcomes* (Buelens, Van De Woestyne, Mestdagh, & Bouckenooghe, 2008). Successful negotiations, however, build on both economic and relational capital and many scholars have bemoaned that the field offers a largely arelational view of an inherently relational situation (Gelfand, Smith Major, Raver, Nishii, & O'Brien, 2006), emphasising autonomy, competition, and rationality over interdependence, cooperation, and relationality (Gray, 1994). Therefore, a growing body of research argues for the importance of focus on *relational outcomes* among negotiating parties (Curhan et al., 2006; Gelfand et al., 2006). These outcomes will result in the commitment or otherwise to continue the (negotiation) relationship. The integration of both classes of outcomes in the study of negotiation is essential to address critics of arelationality.

Hence, we distinguish two categories of *negotiation outcomes* in our research design: economic and social-psychological outcomes (Thompson, 1990). *Economic outcomes* refer to the explicit terms or products of the negotiation, such as whether an agreement has been reached, how much joint benefit has been created, and how resources are divided or claimed by the individual parties. *Social-psychological outcomes* are based on social perception and consist of three important elements: perceptions of the negotiation situation, perceptions of the other party, and perceptions of the self (Thompson & Hastie, 1990). They can be defined as the subjective value negotiators attach to the negotiation process, being the social, perceptual, and emotional consequences of a negotiation (Curhan et al., 2006). These subjective outcomes also indicate to what degree a negotiator is satisfied with the relational aspect of the negotiation, termed relational negotiation outcome, and his proneness to continue this relationship in future collaboration.

Negotiation and creativity

Most creativity research concerns the nature of creative thinking, the distinctive characteristics of the creative person, the development of creativity across the individual life span, and the social environments most strongly associated with creative activity (Simonton, 2000). The effects of creativity remain ill researched (Mumford, 2003) and have not been linked to negotiation, apart from the study of Kurtzberg (1998), nor to negotiation outcomes in particular (Carnevale, 2006).

Nevertheless previous research found that creative people are able to keep their mind open long enough to make mental leaps, whereas less creative persons tend to prematurely leap to conclusions (Torrance, 1984; 1990; 1998). Since negotiators' ability to create alternatives is inherently linked to successful negotiations (Thompson, 2005), we propose that negotiation outcomes will significantly relate to negotiators' creativity.

To examine how creativity as individual difference affects these negotiation outcomes, defining the *negotiation context* is of utmost importance. Various characteristics of situations have the capability to restrict the expression of individual differences (Mullins & Cummings, 1999; Snyder & Ickes, 1985; Weiss & Adler, 1984). The negotiation context as such can influence the expression of creativity of individual negotiators, and thus exert an indirect effect on negotiation outcomes. The context of a negotiation can be defined as integrative or distributive. Expanding the value of the agreement, termed *integrative negotiating*, increases the relative efficiency of the agreement for all parties (Lax & Sebenius, 1986; Neale & Bazerman, 1991; Raiffa, 1982). *Distributive negotiation* on the contrary implies the 'who gets how much' division. Only by departing from the distributive paradigm are negotiators able to deliver more creative solutions that not only meet the interests of both parties, but also increase the overall value of the final settlement (Galinsky, & Mussweiler, 2001). Given the unique and complex nature of integrative solutions, creativity is most likely to occur in these negotiation processes (Neale & Bazerman, 1991). Therefore the focus of this study concerns the link between negotiators' creative thinking and negotiation outcomes in a situation with integrative potential.

Based upon this theoretical framework, we formulate the following hypotheses:

Hypothesis 1: Negotiators with higher levels of creativity will reach higher economic outcomes in a situation with integrative potential.

Hypothesis 2: Negotiators with higher levels of creativity will reach higher relational outcomes in a situation with integrative potential.

METHOD

Sample

Research data are collected by means of a random sample of management students ($n = 12$) and part-time MBA (Master in Business Administration) students ($n = 58$), engaged in working life, from a leading European business school. The study fitted within their negotiation course program and participants were asked for their voluntarily cooperation.

Respondents' ages ranged from 22 to 40 years ($M = 30.6$, $SD = 4.89$ years). Eighty percent were men, and 20% were women. The majority of the participants had no negotiation experience (48.5%) to some negotiation experience (48.5%). Three percent of the participants had a lot of negotiation experience.

Measures and procedure

Data collection took place in two successive assessments, performed on the same sample of participants. Data of the first assessment included a self-report on creativity. For the second assessment participants performed a simulated negotiation task in purposely assigned dyads and filled out two post-negotiation questionnaires.

Creativity was measured with the Torrance Figural Test of Creative Thinking (TTCT) (Torrance, 1998). The TTCT is highly recommended in the educational field and is often used in corporate environments. It is the most widely used test of creativity (Davis, 1997), also for research purposes (e.g. Kim, 2006a; Lissitz & Wilhoft, 1985; Oral, 2006).

Its use is supported by more evidence of validity than any other creativity test (Kerr, Gagliardi, & Shane 2003). It has one of the largest norming samples, valuable longitudinal validations and high predictive validity over a very wide age range (Cropley, 2000). The TTCT addresses essential constructs of creative behaviours reflective of Torrance's definition of creativity (Johnson & Fishkin, 1999) and is regarded to be a good measure for discovering and encouraging everyday life creativity in the general population (Kim, 2006). The test has reasonable reliability for research applications, given the complexity of creative thinking (Treffinger, 1985).

The TTCT (1998) uses three picture-based tasks to assess five mental characteristics¹ relating to creativity: fluency, elaboration, originality, resistance to premature closure (the degree of psychological openness), and abstractness of titles (the degree beyond labelling). The TTCT –Figural has two parallel forms, A and B, both consisting of three activities: picture construction, picture completion, and repeated figures of lines or circles (Torrance, 1966, 1974, 1984, 1990, 1998). Each participant was randomly assigned to complete the form A or form B of the TTCT during a group session. The test yielded a composite score (Creativity Index CI), as an overall indicator of creative potential, which is obtained by using the standard scores of each of the five characteristics (Torrance, 1998). Artistic quality does not receive credit (Chase, 1985). This total CI is a highly significant predictor for quality of creative achievement (Torrance, 2002). Before the negotiation exercise, participants were purposely assigned to dyads according to their normalised Creativity Index score on the TTCT. We created two groups of dyads, based on the mean normalised Creativity Index (M= 48.9) of the sample. The first group of dyads consisted of individuals with scores on the TTCT above the sample mean; they were regarded as highly creative individuals.

¹ the measure of flexibility was eliminated in the third edition of the TTCT in 1984

The second group was composed of participants with scores below the mean; they were considered to be low creative individuals. As such, 35 dyads were composed, consisting of individuals with equally high or equally low scores.

Negotiation exercise

In this session participants performed a negotiation simulation. Although the ecological validity of employing a role-play methodology to study spontaneous interactions or interactions that involve deep personal feelings may be questionable, this methodology is less problematic in a study of negotiation, given that negotiating is a task requiring impressions to be consciously stage-managed (Goffman, 1969).

The negotiation case 'The Tendley contract' (Wheeler, 2003) is a two-party, multi-issue negotiation involving a consulting contract between a school (buyer) and a consultant of computer software (seller). The parties are at an apparent impasse, since the consultant's bid far exceeds what the school has in its budget. The specific case context as such offers virtually no zone of possible agreement (ZOPA) but has potential for reaching an integrative solution. Within the dyads, participants were randomly assigned to the experimental roles of the negotiation simulation. They were given background information on their roles and instructed to learn their role priorities and preferences. Case instructions obliged participants to go beyond a plain distributive outcome ('simply splitting the difference is not a viable option'). This encouraged the use of creative, option-generating thinking to get to a successful agreement.

Negotiation outcomes

We measured two classes of negotiation outcomes (economic and relational), as stated in the theoretical framework.

Economic negotiation outcomes were measured with a post-negotiation questionnaire, in which negotiating dyads reported on their joint outcomes, with the final settlement price (euro amount that they settled upon in the negotiation simulation) as a measure of economic outcome.

Relational negotiation outcomes were measured with the Subjective Value Inventory (SVI; Curhan et al., 2006). Research results suggest that the SVI is a promising tool to systemize and encourage research on the subjective outcomes of negotiation (Curhan et al., 2006). The SVI contains 16 items on a 7-point Likert scale and consists of four subscales (Instrumental, Self, Process and Relationship), measuring: (1) the value of negotiation *process* (fairness and voice); (2) the *instrumental* outcome (outcome satisfaction and distributive fairness); (3) the *relationship* (trust and establishing a good foundation for the future); and (4) the *self* (saving face and living up to one's standards)

The subscale Relationship captures feelings about the relationship among the negotiators, including positive impressions, trust and a solid foundation for working together in the future. This subscale is used as a measure for negotiators' relational outcome of the negotiation.

ANALYSES & RESULTS

Descriptive statistics

Table 1 presents descriptive statistics, alpha reliabilities and correlations of the study variables. All participating negotiators reported a relational negotiation outcome. As only 24 out of 35 negotiating dyads came to an agreement by means of defining a settlement price (economic negotiation outcome), we present the descriptives in two parts.

The first part of Table 1 shows the statistics for all negotiating dyads ($n = 35$). The variable 'agreement' is a categorical variable, indicating whether the dyad reached an agreement (1) or not (0).

Insert Table 1 about here

Creativity of the buyer ($r = .97, p < .001$) and seller ($r = .97, p < .001$) both very strongly correlate with the dyad's joint creativity score, obtained by meaning creativity scores of buyer and seller, since individual negotiators were purposely assigned to a dyad based on equal creativity scores.

Relational negotiation outcomes of both buyer ($r = -.25, p = .15$) and seller ($r = -.26, p = .13$) are negatively correlated to dyads' joint creativity score, but these correlations are non-significant.

Relational outcomes of buyer and seller also negatively correlate to negotiators' creativity score, in a non-significant way. Furthermore, a significant correlation between the relational negotiation outcome of buyer and seller ($r = .45, p < .01$) is observed.

We cannot draw conclusions for the *economic negotiation outcome* (variable 'settlement price') for the total sample of negotiators, since not all dyads in the total sample reached an agreement. Therefore, no correlations were calculated for this variable.

Other results show a strong and significant correlation of the variable 'agreement' with individual negotiators' relational outcome, both for the buyer ($r = .36, p < .05$) and for the seller ($r = .43, p < .01$). Therefore the effect of creativity on the relational negotiation outcome might be affected by the reaching or otherwise of an agreement, as the correlations indicate. To test this assumption we compared these two groups (dyads with an agreement or no agreement) on relational negotiation outcomes. We performed an **independent samples t-test**, comparing the means for relational outcome (see Table 2).

Insert Table 2 about here

We observe a significant difference in relational outcome between negotiating dyads who reached an agreement and those who did not both for the buyers group ($t(33) = -2.24, p < .05$) and for the sellers group ($t(33) = -2.74, p < .01$). Dyads with an agreement score significantly higher on the relational outcome than dyads without an agreement.

To isolate the potential effect of 'agreement' on relational negotiation outcome, we decided to include only the dyads who reached an agreement in further data analysis. We present the descriptive statistics, alpha reliabilities and correlations of the study variables for this subsample of 24 dyads with an agreement in the second part of Table 1.

The significant positive correlation between the relational negotiation outcome of buyer and seller, which we also found in the total sample of 35 dyads, was corroborated ($r = .46, p < .05$). This may indicate an underlying interdependence between both negotiators in one dyad.

As for *economic outcome* we found a positive, though non-significant, correlation between negotiators' creativity and joint settlement price.

For *relational negotiation outcomes*, we find the same negative tendency of correlations with negotiators' creativity as in the total sample, both for buyer and seller. For the buyers' relational outcome we observe very strong significant negative correlations with creativity of buyer ($r = -.44, p < .05$) and seller ($r = -.50, p < .05$). Thus, higher levels of negotiators' creativity relate to lower relational outcomes in a situation with integrative potential.

To examine causality and analyze the extent to which negotiators' creativity can predict relational negotiation outcomes we performed hierarchical regression analyses, with negotiators' creativity score as independent variable and negotiators' relational negotiation outcome as dependent variable.

We conducted separate analyses for buyers and sellers, with respect to economic and relational outcomes. Table 3 shows the results of these analyses.

Insert Table 3A & B about here

Table 3A shows no significant effect of negotiators' joint creativity on economic negotiation outcome ($\beta = .11, p = .60$). As such, we could not find indication for the positive effect we predicted in hypothesis 1.

In Table 3B we observe a significant negative effect of negotiators' creativity ($\beta = -.48, p < .05$) on relational negotiation outcome for the buyer, whereby creativity of the seller ($\beta = -.50, p < .01$) adds significantly more to the variance in relational outcome than the creativity of the buyer ($\beta = -.44, p < .05$). For the seller, we find the same negative tendency, though no significant effect of negotiators' joint creativity ($\beta = -.13, p = .54$) on relational negotiation outcome, nor for the individual buyer's creativity ($\beta = -.15, p = .48$) or the seller's creativity ($\beta = -.11, p = .61$). Hypothesis 2, predicting a positive effect of negotiators' creativity on relational negotiation outcome, thus can not be corroborated.

DISCUSSION

This study set out to examine the effect of negotiators' creativity on relational and economic negotiation outcomes. We find no support for our first hypothesis, predicting a positive effect of negotiators' creativity on economic negotiation outcomes. However, a positive trend can be observed in our research results. Further research, with a larger sample, is needed to confirm a significant effect.

Our second hypothesis, predicting that creativity of negotiators will affect relational negotiation outcomes positively, is not supported. On the contrary, we find a significant negative effect of both negotiators' creativity on relational outcome for the buyer, whereby creativity of the seller adds significantly more to the variance in relational outcome than the creativity of the buyer. Past research has found that negotiation outcomes tend to be affected more by individual characteristics of the person in the high-power versus low-power role (e.g., Allred, Mallozi, Matsui, & Raia, 1997; Anderson & Thompson, 2004). In our study the seller is in the higher power role by virtue of a better BATNA (Best Alternative to a Negotiated Agreement). This can explain the stronger significant effect of sellers' creativity on relational outcome. Our finding is highly relevant for any negotiation situation, in which two individuals work together towards a common goal.

Contributions

First, this study highly contributes to negotiation literature by addressing a gap in research. To date there has been little research that focuses on the potential effect of creativity on relational and economic negotiation outcomes, although negotiation is inherently linked to creative thinking (Thompson, 2005).

Results of this study show a contradiction between a negative effect of creativity on relational negotiation outcomes and no significant effect of creativity on economic outcome. These results indicate that the effect on negotiation outcomes may be linked with *negotiators' specific skills*. Possibly the skills one needs to maximize economic gain differ from the skills needed to maximize relational gain. For economic outcomes problem-solving skills and rational thinking may be needed, whereas to obtain relational gain emotional intelligence or relational orientation might be more central. Thus in the

maximization of both types of negotiation outcomes creativity may interact with these different negotiator skills. A large body of research has already examined the possibility that creativity is affected by a variety of individual difference characteristics (e.g., Rodan & Galunic, 2004; Tierney & Farmer, 2002), however not yet in the context of negotiation. This is an important avenue for future research.

Secondly, our study adds to creativity literature, since the effects of creativity have remained rather ill researched (Mumford, 2003). It also extends previous creativity research by Kurtzberg (1998). His research already demonstrated the strength of association between creativity and economic negotiation outcomes. Our study shows a negative effect of creativity on relational negotiation outcome.

Limitations and future research

The findings in this study are subject to a number of limitations, pointing out the need for future research.

First, in this study we obtained a general, non-particularized creativity score for each negotiator based on his results on the Figural TTCT. Creativity, however, can be perceived as a multi-faceted construct (Amabile & Mueller, 2008) and one could wonder whether we adequately captured the specific facets of creativity linked to the different classes of negotiation outcomes. Furthermore, Clapham (2004) stated that different types of creativity tests seem to predict different types of creative performance. Fitting in with this viewpoint both Torrance (Treffinger, 1985) and Cropley (2000) suggested that assessments of creativity should be based on several tests, considering the multidimensional nature of the concept. Johnson and Fishkin (1999) recommend using a minimum of two measures.

Future research should thus not only identify which aspects of creativity are crucial to negotiators for enhancing effective negotiation outcomes but also determine how they can be adequately measured. This notwithstanding the fact that creativity, as a multifaceted phenomenon, is complex and has many elements that interact on its manifestation (Isaksen, Puccio, & Treffinger, 1993), what makes it very difficult to adequately capture the crucial elements.

Second, previous research that examined creativity and individual level outcomes has found positive associations with performance, innovation, job satisfaction, and a reduction in strain. However, taken as a whole the relationships between individual creativity and outcomes are not direct, but rather appear to be predicted upon a fit or congruence between an individual and the job and/or the individual's job and the organization (Gilson, 2008). Consequently, a (mis)fit between individual and negotiation task can have a potential effect upon negotiation outcomes. As such, our research results are potentially influenced by the particularity of the negotiation case. Also the time pressure laid upon participants for finalizing the negotiation task might have had an impact upon negotiation performance. Consistent with previous research (Shalley, Zhou, & Oldham, 2004) we hypothesize that the presence of both negotiation task type and time pressure as multiple competing contextual conditions lead to lowered negotiator creativity levels. Therefore, further research should include creativity process measures in its design to capture the interaction of creativity as an individual difference variable with situational variables (Elfenbein et al., 2008; Mohammed, Rizzuto, Hiller, Newman, & Chen, 2008). To study this interaction is highly important as it may determine the positive or negative impact creativity has on outcomes (Gilson, 2008) and thus lend us more insight in how creativity transforms into high quality economic and relational negotiation outcomes.

Despite these limitations, we believe that this study has extended our understanding of the relationship between negotiators' creativity and negotiation outcomes. Nevertheless, this is a preliminary study and more extensive research, with a larger sample size is needed.

Practical implications

The results of this study demonstrate that the effects of individual creativity on negotiation outcomes are difficult to capture. Situational variables potentially interact with creativity and thus moderate the effect of creativity on performance (Shalley et al., 2004), more specifically negotiation outcomes. For instance, several researchers found that motivation (Bamber, 1973; Halpin & Halpin, 1973; Torrance, 1966, 1974) and exposure to diverse information (Clapham 2000) influence creativity, as measured with TTCT Figural scores. In a similar vein, other research (Torrance, 1972a; 1972b; 1974) evidences that when individuals possess high degrees of creative abilities this only increases the chances that this person may behave creatively. This does not guarantee however that an individual will behave creatively.

These findings have important implications for negotiations as they involve that negotiation situations can be purposely designed to encourage accessibility of negotiators' creative abilities. We are convinced that this intervention potentially improves negotiation outcomes, since creative thinking is inherently linked with negotiation. As such, all factors that are known to negatively impact upon creativity should be eliminated out of the negotiation context. Negotiators should for instance avoid time pressure (Amabile, 1996), lack of space and presence of noise (Soriano de Alencar & Bruno-Faria, 1997), unexpected interruptions (Oldham, Cummings, & Zhou, 1995) and apparent presence of competitors (Shalley & Oldham, 1997).

This manipulation of the negotiation context will evidently contribute to negotiators' creative thinking, but providing the conditions for creativity manifestation is not enough. Direct creativity teaching and training is needed as well (Torrance, 1972c). Results of our study confirm that individuals significantly differ in creative thinking. However this does not imply that creativity is a stable characteristic and can not be developed. Scott, Leritz, and Mumford (2004) concluded in their review that creativity training is effective and positively related to divergent thinking, problem solving, performance, attitudes, and behaviours. Moreover domain-specific training that is realistic, focuses on component skills, and allows for feedback is most strongly correlated with improved performance. These results have an important impact on negotiation in general and negotiators' creative skills in specific. It demonstrates the feasibility of creativity training, when specifically related to the domain of negotiation, to ameliorate negotiators' problem solving skills and enhance their engagement in creative thinking patterns.

REFERENCES

- Allred, K.G., Mallozi, J.S., Matsui, F., & Raia, C.P. (1997). The influence of anger and compassion on negotiation performance. *Organizational Behavior and Human Decision Processes*, 70, 175-187.
- Amabile, T.M. (1996). *Creativity in context*. Boulder, CO: Westview.
- Amabile, T.M., & Mueller, J.S. (2008). Studying creativity, its processes, and its antecedents: An exploration of the componential theory of creativity. In J. Zhou & C.E. Shalley (Eds.), *Handbook of Organizational Creativity* (pp. 33-64). New York: Lawrence Erlbaum Associates.
- Anderson, C., & Thompson, L. (2004). Affect from the top down: How powerful individuals' positive affect shapes negotiations. *Organizational Behavior and Human Decision Processes*, 95, 125-139.
- Bamber, R.T. (1973). Play, interest, domestication and creativity. Doctoral dissertation, University of Missouri. *Dissertation abstracts international*, 35, 1013B-1014B. (UMI No. 74-18, 463).
- Barry, B., & Friedman, R.A. (1998). Bargainer characteristics in distributive and integrative negotiation. *Journal of Personality and Social Psychology*, 74 (2), 345-359.
- Bazerman, M.H., Curhan, J.R., Moore, D.A., & Valley, K.L. (2000). Negotiation. In J.T. Spence & D.L. Schacter, & C. Zahn-Waxler (Eds.), *Annual Review of Psychology*, 51, 279-314. Palo Alto, CA: Annual Reviews.
- Buelens, M., Van de Woestyne, M., Mestdagh, S., & Bouckenooghe, D. (2008). Methodological issues in negotiation research: A state-of-the-art review. *Group Decision & Negotiation*, 17, 321-345.
- Carnevale, P.J. (2006). Creativity in the outcomes of conflict. In M. Deutsch, P.T. Coleman, & E.C. Marcus (Eds.), *The handbook of conflict resolution: Theory and practice (2nd Ed)* (pp. 414-435). Hoboken, NJ, US: Wiley Publishing.

Chase, C.I. (1985). Review of the Torrance Tests of Creative Thinking. In J.V. Mitchell Jr. (Ed.), *The ninth mental measurements yearbook* (pp. 1631–1632). Lincoln: University of Nebraska, Buros Institute of Mental Measurements.

Clapham, M.M. (2000). The effects of affect manipulation and information exposure on divergent thinking. *Creativity Research Journal*, *13*, 335–350.

Clapham, M.M. (2004). The convergent validity of the Torrance Tests of Creative Thinking and creativity interest inventories. *Educational and Psychological Measurement*, *64*, 828.

Cropley, A.J. (2000). Defining and measuring creativity: Are creativity tests worth using? *Roeper Review*, *23* (2), 72-79.

Curhan, J.R., Elfenbein, H.A., & Xu, H. (2006). What do people value when they negotiate? Mapping the domain of subjective value in negotiation. *Journal of Personality and Social Psychology*, *91*, 493-512.

Davis, G.A. (1997). Identifying creative students and measuring creativity. In N. Colangelo, & G.A. Davis (Eds.), *Handbook of gifted education* (pp. 269-281). Needham Heights, MA: Viacom.

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. *Interpersonal Relations and Group Processes*, *78* (5), 889-905.

Elfenbein, H.A., Curhan, J.R., Eisenkraft, N., Shirako, A., & Baccaro, L. (2008). Are some negotiators better than others? Individual differences in bargaining outcomes. *Journal of Research in Personality*, *42*, 1463-1475.

Galinsky, A.D. & Mussweiler, T. (2001). First offers as anchors: The role of perspective-taking and negotiator focus. *Journal of Personality and Social Psychology*, *81* (4), 657-669.

Gelfand, M.J., Smith Major, V, Raver, J.L., Nishii, L.H., & O'Brien, K. (2006). Negotiating relationally: the dynamics of the relational self in negotiations. *Academy of Management Review*, *31* (2), 427-451.

Gilson, L.L. (2008). Why be creative? A review of the practical outcomes associated with creativity at the individual, group, and organizational levels. In J. Zhou & C. E. Shalley (Eds.), *Handbook of organizational creativity* (pp. 33-64). New York: Lawrence Erlbaum Associates.

Goffman, E. (1969). *Strategic interaction*. Philadelphia: University of Pennsylvania Press.

Gray, B. (1994). The gender-based foundations of negotiation theory. In Lewicki, R.J., Sheppard, B.H., & Bies, R. (Eds.), *Research on negotiation in organizations* (pp. 3-36). Greenwich, CT: JAI Press.

Guilford, J.P. (1959). *Personality*. New York: McGraw-Hill.

Halpin, G., & Halpin, G. (1973). The effect of motivation on creative thinking abilities. *Journal of Creative Behavior*, 7, 51-53.

Isaksen, S.G., Puccio, G.J., & Treffinger, D. (1993). An ecological approach to creativity research: Pulling for creative problem solving. *Journal of Creative Behavior*, 27, 149-170.

Johnson, A.S., & Fishkin, A.S. (1999). Assessment of cognitive and affective behaviors related to creativity. In A.S. Fishkin, B. Cramond, & P. Olszewski-Kubilius (Eds.), *Investigating creativity in youth: Research and methods* (pp. 265-306). Cresskill, NJ: Hampton.

Kerr, B., Gagliardi, C., & Shane (2003). *Measuring creativity in research and practice*. American Psychological Association.

Kim, H.K. (2006a). Can we trust creativity tests? A review of the Torrance Tests of Creative Thinking (TTCT). *Creativity Research Journal*, 18 (1), 3-14.

Kim H.K. (2006b). Is Creativity unidimensional or multidimensional? Analyses of the Torrance Tests of Creative Thinking. *Creativity Research Journal*, 18 (3), 251-259.

Kramer, R.M., & Messick, D.M. (1995). *Negotiation as a social process: New trends in theory and research*. Thousand Oaks, CA: Sage.

Kurtzberg, T.R. (1998). Creative thinking, Cognitive aptitude, and integrative joint gain: A study of negotiator creativity. *Creativity Research Journal*, 11 (4), 283-293.

- Lax, D., & Sebenius, J. (1986). *The manager as negotiator*. New York: Free Press.
- Lissitz, R.W., & Wilhoft, J.L. (1985). A methodological study of the Torrance Tests of Creativity. *Journal of Educational Measurement*, 22 (1), 1-11.
- Millar, G.W. (2002). *The Torrance kids at mid-life*. Westport, CT: Ablex.
- Mohammed, S., Rizzuto, T., Hiller, N.J., Newman, D.A., & Chen, T. (2008). Individual differences and group negotiation: The role of polychronicity, dominance, and decision rule. *Negotiation and Conflict Management Research*, 1, 282-307.
- Mullins, J.M., & Cummings, L.L. (1999). Situational strength: A framework for understanding the role of individuals in initiating proactive strategic change. *Journal of Organizational Change Management*, 12, 462-479.
- Mumford, M.D. (2003). Where have we been, where are we going: Taking stock in creativity research. *Creativity Research journal*, 15, 107-120.
- Neale, M.A., & Bazerman, M.H. (1991). *Negotiator cognition and rationality*. New York: Free Press.
- Oldham, G. R., Cummings, A., & Zhou, J. (1995). The spatial configuration of organizations. In G. Ferris (Ed.). *Research in personnel and human resources management* (pp. 1-37). Greenwich, CT: JAI Press.
- Oral G. (2006). Creativity of Turkish prospective teachers. *Creativity Research Journal*, 18 (1), 65-73.
- Pruitt, D.G. (1981). *Negotiation behavior*. New York: Academic Press.
- Pruitt, D.G., & Carnevale, P.J. (1993). *Negotiation in social conflict*. Pacific Grove, CA: Brooks/Cole.
- Raiffa, H. (1982). *The art and science of negotiation*. Cambridge, MA: Harvard University Press.
- Rodan, S., & Galunic, C. (2004). More than network structure: how knowledge heterogeneity influences managerial performance and innovativeness. *Strategic Management Journal*, 25, 541-562.
- Scott, G., Leritz, L.E., & Mumford, M.D. (2004). The effectiveness of creativity training: A quantitative review. *Creativity Research Journal*, 16 (4), 361-388.

- Shalley, C.E., & Oldham, G.R. (1997). Competition and creative performance: Effects of competitor presence and visibility. *Creativity Research Journal*, *10*, 337–345.
- Shalley, C.E., Zhou, J., & Oldham, G.R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of Management*, *30* (6), 933-958.
- Simonton, D.K. (2000). Creativity: Cognitive, personal, developmental, and social aspects. *American Psychologist*, *55*, 151-158.
- Snyder, M., & Ickes, W. (1985). Personality and social behavior. In G. Lindzey & E. Aronson (Eds.), *Handbook of Social Psychology (3rd ed)* (pp. 883–948). New York: Random House.
- Soriano de Alencar, E., & Bruno-Faria, M. (1997). Characteristics of an organizational environment which stimulates and inhibits creativity. *Journal of Creative Behavior*, *3*, 271–281.
- Sternberg, R.J. (2006). The nature of creativity. *Creativity Research Journal*, *18* (1), 87-98.
- Thompson, L. (1990). Negotiation behavior and outcomes: Empirical evidence and theoretical issues. *Psychological Bulletin*, *108* (3), 515-532.
- Thompson, L. (2005). *The mind and heart of the negotiator*. Pearson Prentice Hall: New Jersey.
- Thompson, L., & Hastie, R. (1990). Social perception in negotiation. *Organizational Behavior and Human Decision Processes*, *47* (1), 98-123.
- Tierney, P., & Farmer, S.M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management Journal*, *45* (6), 1137-1148.
- Torrance, E.P. (1966). *The Torrance Tests of Creative Thinking – Norms – Technical Manual Research Edition – Verbal Tests, Forms A and B – Figural Tests, Forms A and B*. Princeton NJ: Personnel Press.
- Torrance, E.P. (1972a). Tendency to produce unusual visual perspective as a predictor of creative achievement. *Perceptual and Motor Skills*.
- Torrance, E.P. (1972b). Predictive validity of 'bonus' scoring for combinations on repeated figures tests of creative thinking. *Journal of Psychology*, *81*, 167-171.

Torrance, E.P. (1972c). Can we teach children to think creatively? *Journal of Creative Behavior*, 6, 114-143.

Torrance, E. P. (1974). *The Torrance Tests of Creative Thinking—Norms—Technical Manual Research Edition—Verbal Tests, Forms A and B—Figural Tests, Forms A and B*. Princeton NJ: Personnel Press.

Torrance, E. P. (1984). *The Torrance Tests of Creative Thinking streamlined (revised) manual Figural A and B*. Bensenville, IL: Scholastic Testing Service.

Torrance, E. P. (1990). *The Torrance Tests of Creative Thinking Norms—Technical Manual Figural (streamlined) Forms A & B*. Bensenville, IL: Scholastic Testing Service.

Torrance, E. P. (1998). *The Torrance tests of creative Thinking Norms—Technical manual figural (streamlined) forms A & B*. Bensenville, IL: Scholastic Testing Service, Inc.

Torrance, E.P. (2002). *The manifesto: A guide to developing a creative career*. Westport, CT: Ablex.

Treffinger, D.J. (1985). Review of the Torrance Tests of Creative Thinking. In J.V. Mitchell Jr. (Ed.), *The ninth mental measurements yearbook* (pp. 1632–1634). Lincoln: University of Nebraska, Buros Institute of Mental Measurements.

Wheeler, M. (2003). *The Tendley contract*. Cambridge: Program on Negotiation Clearinghouse.

Weiss, H. M., & Adler, S. (1984). Personality and organizational behavior. *Research in Organizational Behavior*, 6, 1–50.

TABLE 1

Means, standard deviations and intercorrelations

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
<i>35 dyads</i>									
<i>(with and without agreement)</i>									
1. Creativity dyad	49.36	26.96							
2. Creativity buyer	51.20	26.99	.97***						
3. Creativity seller	47.51	28.54	.97***	.89***					
4. Relational outcome seller	4.98	1.20	-.26	-.25	-.25				
5. Relational outcome buyer	4.86	.99	-.25	-.22	-.26	.45**			
6. Economic outcome dyad	-	-	-	-	-	-	-	-	-
7. Agreement	-	-	.11	.04	.17	.43**	.36*	-	-
<i>24 dyads (with agreement)</i>									
1. Creativity dyad	51.38	27.44							
2. Creativity buyer	51.92	28.09	.99***						
3. Creativity seller	50.83	27.65	.98***	.4***					
4. Relational outcome seller	5.32	.98	-.13	.15	-.11				
5. Relational outcome buyer	5.10	.98	-.48*	.14*	-.50*	.46*			
6. Economic outcome dyad	61,938	21,033	.11	.07	.15	.28	.23		

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

'Creativity' is a percentile score

'Relational outcome' is measured on a 7-point scale

'Economic outcome' is expressed in euro amount

'Agreement' is a categorical variable, indicating whether the dyad reached an agreement (1) or not (0).

TABLE 2

Comparison of dyads with an agreement (n = 24) and without an agreement (n = 11) on mean relational outcome scores

<i>Variable</i>	Dyads with agreement		Dyads without agreement		Comparison	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>
Relational Buyer	5.10	.98	4.34	.84	-2.24*	(33)
Relational Seller	5.32	.98	4.23	1.33	-2.74**	(33)

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

TABLE 3A

Hierarchical regression analysis of negotiators' creativity on economic negotiation outcome (n = 24)

<i>Variable</i>	β	<i>t</i>	R^2
Creativity dyad	.11	.53	.01
Creativity buyer	.07	.34	.01
Creativity seller	.15	.72	.02

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

TABLE 3B

Hierarchical regression analysis of negotiators' creativity on relational negotiation outcome (n = 24)

<i>Variable</i>	β	<i>t</i>	R^2
<i>Buyer</i>			
Creativity dyad	-.48	-2.56*	.23
Creativity buyer	-.44	-2.33*	.20
Creativity seller	-.50	-2.70**	.25
<i>Seller</i>			
	-.13	-.63	.02
Creativity dyad	-.15	-.72	.02
Creativity buyer	-.11	-.52	.01
Creativity seller			

*Note: *p < .05, **p < .01, ***p < .001.*