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Need for Closure and Competition in Intergroup Conflicts:

Experimental Evidence for the Mitigating Effect of Accessible Conflict Schemas

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Abstract

Three experimental studies demonstrate that momentarily-accessible conflict-schemas moderate the relationship between need for closure and conflict-strategy preferences, with the relationship between a high need for closure and increased competitiveness reduced to non-significance when a cooperative conflict schema is made salient but strengthened when a hostile one is activated. Study 1 manipulated the accessibility of competitive versus cooperative conflict schemas using different descriptions of a contemporary political conflict, while Studies 2 and 3 manipulated conflict-schema accessibility using primes embedded in an ostensibly-unrelated lexical decision task. Together, the present studies provide a strong pattern of experimental support for the moderating effect of conflict-schema accessibility suggested by earlier correlational studies. The implications for conflict reduction are discussed.

Keywords: Group conflict, conflict schemas, need for closure, epistemic motivation.

Imagine that someone hears about an encounter in which representatives of a group she belongs to disagreed with representatives of another group about some issue. The individual would probably form a very different impression of this situation if it were described as a ‘confrontation’ rather than a ‘debate.’ In both cases, she would probably think something that might reasonably be described as a ‘conflict.’ Nevertheless, in each of the two cases, she would interpret this conflict differently: she would probably think of the ‘confrontation’ as irreconcilable and destructive, while seeing the ‘debate’ as tractable and potentially constructive. Moreover, if she were in a position to respond to this conflict, she would probably choose competition in the first case and cooperation in the second. This choice would then influence further escalation or de-escalation of the conflict. This example provides an illustration of how conflict-strategy preferences may be shaped in a *top-down* fashion by the cognitive constructs salient in a given context. However, research suggests that conflict-strategy preferences also depend on the cognitive orientation individuals bring to bear on conflict-related judgments. Generally, cooperation is more likely when participants make sense of a dispute in a complex fashion; i.e., when they see beyond their own perspective and understand their opponent’s point of view. In contrast, competition is more likely when a conflict is seen in simple, black-and-white terms and the “decisive” outcome seemingly promised by the total defeat of one’s enemies is preferred (Deutsch, 1973; Golec, 2002a; Pruitt & Carnevale, 1982; Pruitt, Rubin & Kim, 1994; Suedfeld & Tetlock, 1977). Thus, conflict-strategy preferences are also shaped in a *bottom-up* fashion by different styles of cognition.

We argue that both of these processes are affected by individual differences in the need for cognitive closure – or the degree to which one is motivated to seek out, possess, and rely on knowledge that is clear, unambiguous, and stable (Kruglanski, 2004; Kruglanski & Webster, 1996). Consistent with the logic of the bottom-up perspective described above, the preference for decisiveness and simple black-and-white understandings of social life associated with a high need for closure predisposes people to prefer competition over cooperation in political conflicts. However, in a top-down fashion, the need for closure also encourages individuals to rely on whatever cognitive constructs are salient at a given time, including constructs with descriptive and prescriptive relevance to conflict strategy. Importantly, these

can be either “competitive” or “cooperative” in their implications, setting up the possibility of friction between the bottom-up and top-down effects of the need for closure. As such, we argue that a competitive conflict schema should reinforce the aggressive tendency *generally* associated with the way people with a high need for closure construe and deal with conflict, while a cooperative schema should cancel it out, reducing the association between the need for closure and conflict-strategy preferences (Federico, Golec & Dial, 2005; Golec & Federico, 2004; Golec de Zavala, 2006). The studies reported here use an experimental approach to examine this interactive hypothesis in the context of multiple real-world conflicts. Before turning to these studies, we briefly review previous research on the motivational antecedents of conflict-strategy preferences.

The need for closure and intergroup conflict

Research suggests that a number of “epistemic motivations” have an impact on how people perceive and respond to social situations (Brewer, 1988; Chaiken, Liberman & Eagly, 1989; Fiske & Neuberg, 1990; Gollwitzer, 1990; Hilton & Darley, 1991; Kruglanski & Webster, 1996; Kruglanski, 2004; Tetlock, 1992). One of the most important of these motivations – particularly in the context of social conflict – is the aforementioned *need for cognitive closure* (Golec & Federico, 2004; Shah et al. 1998). Individuals under a high need for closure prefer surroundings characterized by order, stability and predictability. Moreover, they are motivated to reduce the discomfort associated with uncertainty as decisively and quickly as possible, usually by abbreviating their information processing and seizing on whatever cognitive cues are most readily available in a given context. Once they have formed an opinion, they are motivated to protect the closure they have obtained.

Amid conflict, the preference for decisiveness, clarity, and simplicity associated with a high need for closure encourages a preference for competition over cooperation via the *bottom-up* process mentioned above. In general, a competitive approach appears to provide people under a high need for closure with epistemic benefits that cannot be furnished by the relatively complex and seemingly uncertain strategy of cooperation. First, the outcome sought after and promised by competition – the defeat of the other party – suggests decisive finality, even if competition does not always produce this

outcome in practice. In comparison, cooperatively-achieved agreements or giving in to another party's control may seem less stable and definite (Federico, Golec, & Dial, 2005; Golec, 2002b; Golec de Zavala, 2006; Golec & Federico, 2004). Second, to a greater extent than non-competitive strategies, full-fledged competition should clarify the opposition between the ingroup and outgroup in a black-and-white way that reinforces the righteousness of the ingroup's character and aims (Golec & Federico, 2004; Kruglanski et al., in press). Consistent with this logic, our own studies (Federico, Golec & Dial, 2005; Golec, 2002a, 2004; Golec & Federico, 2004; Golec, Federico, Cislak & Dial, 2004) and others (De Dreu, Koole & Oldersma, 1999; De Dreu, Koole, & Steinel, 2000; Shah et al., 1998) suggest that a high need for closure is reliably associated with a preference for competitive approaches to conflict.

However, as noted earlier, we argue that the impact of this bottom-up effect may be qualified by the *top-down* tendency for those with a high need for closure to rely more strongly on whatever constructs happen to be accessible at a given time, since they provide perceivers with an available reference point which can be seized upon amidst uncertainty (DeGrada, Kruglanski, Manetti & Pierro, 1999; Ford & Kruglanski, 1995; Kruglanski, Shah, Pierro & Manetti, 2002; Shah et al., 1998; see also Jost et al., 2003; Thompson, et al., 1994). In the context of intergroup conflicts, the implication of this top-down process is that individual differences in the need for closure may not only have a direct effect on conflict-strategy preferences, but also an effect on the degree to which these preferences are influenced by beliefs associated with salient *conflict schemas*. Conflict schemas are learned clusters of knowledge about intergroup situations that define (1) what situations may be regarded as conflicts, (2) when and how a conflict starts and how it should end, and (3) what the most desirable ways of dealing with conflicts are (Golec & Federico, 2004; see Bar-Tal, Kruglanski, & Klar, 1989).

Importantly, we argue that people acquire and use a variety of conflict schemas: some suggest a distrust of outsiders and a need to rely on competitive strategies, while others may suggest the importance of cooperation (Golec, 2002b; Holsti, 1996; Rokeach, 1967; see also Gelfand, et al., 2001; Pearson & Stephan, 1998; Tinsley, 2001). Since people under a high need for closure rely on accessible cognitive cues, they are influenced by the kind of conflict schema that is salient, whether it is competitive or

cooperative in its implications. Thus, unlike the bottom-up process associated with the need for closure, the top-down process associated with it may not always lead to a preference for competitiveness over cooperativeness. As a result, the bottom-up and top-down processes associated with a high need for closure may reinforce each other under some circumstances and work at cross-purposes under others. On one hand, when a salient conflict schema suggests that aggression is the most desirable way of dealing with conflict, the bottom-up preference for competitive conflict strategies associated with a high need for closure may be magnified by the top-down influence of this schema. On the other hand, when a salient conflict schema suggests that cooperation is the most appropriate way of dealing with conflict, those with a high need for closure may come to a cognitive impasse: a high need for closure should simultaneously motivate them to favor the bottom-up decisiveness and simplicity represented by competition *and* adhere in a top-down fashion to a schema that suggests cooperation. As a result, they may set competitive tendencies aside without necessarily turning all the way toward cooperation. In other words, the two tendencies associated with a high need for closure may cancel each other out in the presence of a cooperative schema.

In line with this interactive hypothesis, our survey studies have indicated that a high need for closure is associated with a preference for competitive over cooperative strategies only among individuals with worldviews or identities that previous work has empirically linked to a hostile conflict schema (see Golec & Federico, 2004). These include foreign-service officers whose views of international politics make sharp “friend/foe” distinctions (Golec & Federico, 2004, Study 1), politicians representing extremist (rather than centrist) political parties (Golec & Federico, 2004, Study 2), students who hold nationalistic (rather than patriotic) attitudes (Federico, Golec & Dial, 2005; Golec, Federico, Cislak & Dial, 2004), and students with conservative rather than liberal political beliefs (Golec de Zavala, 2006).

The accessibility of cooperative conflict schemas: Chronic versus temporary activation

Taken together, the results of these studies indicate that when people with a high need for closure operate under the influence of worldviews or identities that encourage cooperation, the coercive impact of the need for closure is attenuated. We believe this is a significant finding as far as the amelioration of

coercion and violence in political conflicts is concerned. It suggests that the destructive tendencies of group members whose orientation toward cognitive closure might otherwise motivate them to behave competitively in conflict can be mitigated. However, all of these studies dealt with *chronically accessible* conflict schemas known to be linked to enduring predispositions (e.g., party identification). Any attempt to shift these long-standing schemas in the direction of cooperativeness would entail a long and presumably impractical socialization process, which is likely to run up against the stability of adult political predispositions (Sears, 1993). Thus, an important question is whether it is possible to *situationally* and *momentarily* activate cooperative conflict schemas. We believe that this question can be answered in the affirmative, and that the possibility of situational schema effects was suggested but not tested by our earlier studies.

In this vein, conflict schemas are similar in nature and function to other cognitive constructs: they are stored in long-term memory as semantic networks of interrelated beliefs, emotions, and prescriptions for action, and they can vary in their accessibility or salience (Bar-Tal et al., 1989; Ross, 2001). When they are highly accessible – and relevant to a particular situation – these constructs interact with individual predispositions like the need for closure to influence judgment and behavior (Bargh, 1996; Bargh & Pietramonaco, 1982; Higgins, 1996; Kruglanski & Freund, 1983; see also Thompson, et al. 1994). As we have seen, some constructs may be more or less salient to a given individual on a chronic basis, due to their association with some enduring personal characteristic. This was the logic we exploited in our earlier predisposition-based studies. However, a large body of research indicates that the accessibility of various schemas may depend on characteristics of situations *as well as* individuals (see Bargh & Pietramonaco, 1982; Bargh, 1996; Higgins, 1996). In particular, studies have found that people are strongly influenced by cognitive constructs that have been recently and/or frequently activated while making social judgments (Banaji, Lemm & Carpenter, 2001; Bargh & Pietramonaco, 1982; Bargh, 1996; Higgins, 1996) and behavioral decisions (Bargh & Chartrand, 1999).

We argue that most individuals internalize both competitive and cooperative conflict schemas, given their general cultural availability (Bar-Tal et al. 1989; see Archer & Gartner, 1984). Nevertheless,

for any given individual, one schema is more likely to be chronically accessible, leaving the other in a latent but ultimately available state. Our hypothesis is that the latent schema may be activated by salient situational cues and influence conflict strategy preferences over and above the chronically accessible one. Relevant to this point, recent studies in interpersonal negotiations indicate that it is possible to make a cooperative norm temporarily salient and shift the strategies employed by those not motivated to process information thoroughly in a non-competitive direction (De Dreu, Beersma, & Stroebe, in press). Accordingly, we assume that it is possible to structure a situation to weaken (or strengthen) the competitive tendencies associated with a high need for closure, regardless of the influence of conflict schemas that may be chronically accessible due to individual preferences and identifications. Our previous studies examined only the latter, “static” type of conflict schema. Moreover, they did so only indirectly: that is, on the basis of prior observations, we assumed that a hostile conflict schema would be chronically accessible among individuals with broadly “hostile” predispositions, such as a high degree of nationalism (e.g., Federico, Golec & Dial, 2005) or political extremism (Golec & Federico, 2004). So, in sum, our previous work did not sufficiently address the dynamic nature of conflict schema accessibility. Thus, in the present studies, we examine the possibility that the competitiveness associated with a high need for closure may also be turned “on” or “off” by temporarily salient environmental cues.

Overview

To review, our expectation is that the *top-down* effect of the need for closure should reinforce its *bottom-up* tendency to encourage competition over cooperation in the presence of a recently activated competitive conflict schema, but attenuate it in the presence of a cooperative conflict schema. Operationally, this means that the need for closure will be strongly and positively associated with a preference for competitive strategies over cooperative ones when a competitive schema is made accessible, but largely unrelated to conflict-strategy preferences when a cooperative schema is made accessible. We tested this basic hypothesis in three studies in which we looked at two conflicts that differ with respect to their scope, importance, and history: a recent flare-up in relations between Poland and Germany (Studies 1 and 2) and a minor controversy among local authorities in the city of Warsaw (Study

3). Across the studies, we relied on different manipulations of conflict-schema accessibility, including alternate descriptions of a single conflict (Study 1) and a priming procedure embedded in a supposedly unrelated lexical decision task (Studies 2 and 3).

Study 1

Method

Participants

The participants in this study were 79 psychology students at Jagiellonian University in Krakow, Poland. Their age ranged from 22 to 27 years ($M = 23.4$). There were 59 women and 17 men, with 3 persons failing to indicate their gender.

Procedure and Materials

The conflict. Participants were asked to read a short account of the recent Polish-German conflict over the commemoration of Germans exiled from Poland after World War II. As a result of agreements reached at the Yalta and Potsdam Conferences near the end of WWII, lands formerly in the eastern region of pre-war Germany became part of Poland. Germans living there were expelled and forced to move west. Representatives of these exiles and their descendants proposed the building of a monument in Poland commemorating their perceived status as victims of the war and its settlement. However, many Poles were displeased with the idea of allowing Germans to be commemorated as victims, as Germany was the nation that started the war by invading Poland on September 1, 1939. Since this study was conducted, the conflict has escalated, with a call for stronger efforts to enforce German payment of long-overdue war reparations on the Polish side and calls for the return of German lands and indemnification against WWII-era Polish compensation claims on the German side.

Study design. Two primary independent variables were considered: (1) the need for closure, which was measured as an individual-difference variable; and (2) conflict-schema accessibility, which was experimentally manipulated. In the first part of the study, participants were asked to complete a number of questionnaire measures. These included a Polish version of Webster and Kruglanski's (1994) Need for Closure Scale and a series of demographic measures. In the second part of the study, participants

were actually exposed to the conflict-schema manipulation. This manipulation was embedded in the Strategies of Political Conflict Resolution Questionnaire (Golec de Zavala, 2005; Golec & Federico, 2004). In this questionnaire, participants were asked to read a brief description of the aforementioned conflict. We manipulated the accessibility of different conflict schemas by varying the way in which relations between Poland and Germany were *generally* described. In the “competitive” condition, a neutral description of the conflict was followed by text suggesting that Polish-German relations have always been tense and that Poland needs to protect its interests by dealing firmly with Germany. In the “cooperative” condition, the same neutral introduction was followed by text reminding participants that contemporary Polish-German relations are generally friendly and that both countries will soon be members of European Union. In light of these points, the passage recommends that Poland therefore engage in dialogue in order to solve the conflict (Appendix A). After reading these descriptions, participants in both conditions were asked to imagine that they are Polish representatives powerful enough to make decisions about how to resolve the conflict and indicate their preference for various standard conflict-resolution strategies.

Measures

Need for closure

In this study, we used a Polish version of Webster and Kruglanski’s (1994) Need for Closure Scale (Golec, 2001, 2002c). Higher scores indicate a higher need for closure ($\alpha=.83$, $M=3.27$, $SD=.42$).

Conflict resolution strategies: preference for competition over cooperation

Participants read a description of the Polish-German conflict with an additional paragraph containing the conflict-schema manipulation and rated how likely it was that they would choose each of 12 strategies if they were in a position to decide how to resolve the conflict. The strategies were taken from the Strategies of Political Conflict Resolution Questionnaire (Golec de Zavala, 2005; see Appendix B for the items used here) and include 8 items corresponding to competitive strategies (e.g. demonstrating strength in order to deter the other side, etc.; $\alpha=.80$, $M=2.13$, $SD=0.82$) and 4 items corresponding to

cooperative strategies (e.g., proposing concessions or discussing differences; $\alpha=.67$, $M=5.48$, $SD=0.91$).¹ Strategy preference ratings were made on 7-point Likert scales ranging from 1 (*highly unlikely*) to 7 (*highly likely*). As we were primarily interested in participants' support for competitive *over* cooperative strategies, we constructed a measure of “net competitiveness” by regressing the cooperative-strategies scale scores onto competitive-strategies scores. The residuals were recoded to run from 1 to 7, like the original measures ($M=3.50$, $SD=1.46$). In effect, this procedure generates a corrected difference score that overcomes problems associated with traditional difference scores (Cronbach & Furby, 1970).²

Control Variables

Studies on the psychological underpinnings of inter-group behavior indicate that several stable predispositions influence conflict-strategy preferences across situations. Since one of our main goals in this study was to demonstrate that situationally-activated conflict schemas interact with the need for closure over and above the effects of chronically-accessible schemas, we included measures of a number of predispositions likely to be associated with particular conflict schemas.

Conservatism. A growing body of work suggests that the need for closure may be bound up with political conservatism, which allows individuals to manage fear and uncertainty through support for the status quo and group-supported ideas (Jost et al., 2003). Political conservatism is also associated with hawkish attitudes in international conflicts and hostility in inter-group relation (Holsti, 1996). In order to better isolate the effects of the need for closure and the conflict-schema manipulation, a measure of conservatism was included in the analyses. This measure used a single item, which asked participants to place themselves on a seven-point scale ranging from 1 (“very liberal”) to 6 (“very conservative”). Higher scores indicate greater conservatism ($M=2.69$, $SD=.86$).

National attachment. Prior research suggests that higher levels of national attachment are associated with greater competitiveness in international settings (Sidanius et al., 1997), especially among those with a high need for closure (Federico, Golec, & Dial, 2005). Therefore, in order to better examine the effects of our primary independent variables, items from the Polish National Attitudes Questionnaire (Skarzynska & Miskiewicz, 2001) were used to measure two major dimensions of national attachment:

nationalism and patriotism (Kosterman & Feshbach, 1989). All items were answered on a 6-point scale ranging from 1 (“strongly disagree”) to 6 (“strongly agree”). *Nationalism* – a belief in the superiority of one’s nation – was assessed using 7 items (e.g., “Only a person with ‘Polish blood’ can be a real Pole”). Higher scores indicate greater nationalism ($\alpha=.61$, $M=2.69$, $SD=0.63$). *Patriotism* – a neutral love of and devotion to one’s country – was measured using 9 items (e.g., “Being Polish defines who I am,” or “I love Poland”). Higher scores indicate greater patriotism ($\alpha=.90$, $M=3.83$, $SD=0.97$).

German entitativity. Prior research suggests that the perceived cohesiveness of the outgroup – or its *entitativity* – may encourage a hostile orientation toward that group (Castano, Sacchi, & Gries, 2003). Therefore, we also included measure of the perceived entitativity of the German outgroup, using nine items developed by Castano, Sacchi, and Gries (2003). The items in this scale (e.g., “There are strong ties among Germans”) were answered on a 7-point scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). Higher scores indicate higher perceived German entitativity ($\alpha=.73$, $M=4.27$, $SD=.76$).

Chronic conflict perceptions. In order to control for participants’ prior perceptions of the Polish-German conflict, we also included a 6-item measure of chronic Polish-German conflict perceptions derived from a scale developed by Castano, Sacchi, and Gries (2003) for use in a different international context. Each of these items was answered on a seven-point scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). The items included: (1) “Germans have goals that contradict Polish ones,” (2) “Germany is an ally of Poland” (reversed), (3) “Germany cooperates with Poland” (reversed), (4) “Germans are trustworthy” (reversed), (5) “Germans are friendly towards Poland” (reversed), and (6) “Germany is Poland’s enemy.” Higher scores indicate more negative chronic perceptions of Polish-German relations ($\alpha=.82$, $M=3.54$, $SD=.92$).

Demographics. Two demographic variables were also included: (1) gender and (2) age (in years).

Results

Since the need for closure was a continuous measure, we examined our hypotheses using a two-step ordinary least-squares regression approach. In addition to looking at the main and interactive effects of the need for closure and the conflict-schema manipulation on the dependent variable, these models also

included the aforementioned control variables. All of the continuous predictor variables were centered prior to the analysis. The dichotomous variables – gender and the dummy variable for the experimental manipulation – were coded on a -1/1 basis. This procedure allowed us to statistically collapse across the levels of these two variables when estimating the effects of the other variables in the model (Aiken & West, 1991). Finally, Huber-White robust standard errors were used in order to protect against the possible effects of heteroskedasticity (Long & Ervin, 2000).

We begin by examining our primary dependent variable, participants' net preference for competition over cooperation. These results are summarized in Table 1. Model 1 shows the first-order effects of the control variables, the need for closure, and the conflict-schema manipulation. The schema manipulation did not have a statistically significant effect on the dependent variable ($\underline{b} = .01, \underline{p} > .10$), suggesting that the activation of a competitive schema did not in and of itself lead to greater net competition. Nevertheless, collapsing across the levels of this manipulation, Model 1 does reveal a positive relationship between the need for closure and preference for competition over cooperation ($\underline{b} = .90, \underline{p} < .05$). These results are consistent with our 'bottom-up' hypothesis: a high need for closure was indeed associated with preference for competition over cooperation.³ More importantly, however, our interactive hypothesis suggests that the relationship between the need for closure and preference for competition over cooperation in conflict should be stronger when a competitive conflict schema has been activated than when a cooperative one has been activated. Model 2 tested this hypothesis by adding the interaction between the need for closure and the conflict-schema manipulation. As Table 1 indicates, the coefficient for this interaction was significant and in the predicted direction ($\underline{b} = .72, \underline{p} < .05$).

In order to probe this interaction, simple slopes for the relationship between need for closure and preference for competition over cooperation were calculated for participants in each manipulation condition. This was done by recoding the conflict-schema variable on a 0/1 basis; the condition the simple slope was to be calculated for was given a code of 0 in each analysis (Aiken & West, 1991). These analyses indicated that the relationship between need for closure and preference for competition over cooperation was non-significant among participants exposed to a cooperative conflict schema ($\underline{b} = -.11,$

SE \underline{b} = .51, $p > .80$), but positive and significant among participants exposed to a competitive schema (\underline{b} = 1.32, SE \underline{b} = .49, $p < .01$). A graphical representation of these slopes can be found in Figure 1.

Although our main hypotheses were concerned with participants' preference for competition over cooperation, we conducted two additional analyses using the separate competition and cooperation scales as dependent variables. We did this in order to see whether the critical interaction had its primary effect on competition, cooperation, or perhaps both. In this respect, our interactive hypothesis suggests that people high in need for closure will not choose cooperation even if a cooperative conflict schema is made accessible. That is, even if those with a high need for closure are more likely to adhere to accessible schemas in a top-down fashion, a salient cooperative schema will not make them more cooperative but only less competitive, since the resulting tendency toward cooperation will be offset by the bottom-up tendency prefer competition for its simplicity and clarity. When the competition index was used as a dependent variable, a pattern of results similar to those shown in Table 1 was obtained. While the effect of the manipulation was not significant in Model 1 (\underline{b} = .03, $p > .10$), there was a significant main effect of the need for closure (\underline{b} = .49, $p < .05$) in Model 1 and a marginal interaction between need for closure and conflict schema in Model 2 (\underline{b} = .36, $p < .07$).⁴ Simple slope analyses indicated that the relationship between need for closure and the competition index was non-significant when a cooperative schema was activated (\underline{b} = -.02, $p > .10$), but positive and significant when competitive conflict schema was made accessible (\underline{b} = .70, $p < .001$). In contrast, when the cooperation index was used as the dependent variable, the effects of the manipulation and the need for closure were non-significant in Model 1 (both $ps > .40$) and the interaction was non-significant in Model 2 ($p > .50$).⁵

Discussion

The results of Study 1 provide evidence for the hypothesis that conflict-schema accessibility moderates the relationship between the need for closure and conflict-strategy preferences. The findings suggest that relevant conflict schemas do not need to be *chronically accessible* in order to influence the relationship between the need for closure and conflict-strategy preferences; rather, they can also be made accessible by conflict interpretations provided in a particular situational context. Moreover, the results

indicate that effects of such momentarily accessible conflict schemas are significant even over and above the effects of dispositional variables associated with competitive conflict schemas (e.g., nationalism). Finally, our separate analyses of the competitive-strategy and cooperative-strategy indices suggested that the interaction had its primary effect on competitiveness, rather than on cooperativeness.

Importantly, in Study 1, we tested our hypothesis in a relatively direct and overt way: participants read about a historically significant conflict and then made judgments about it, all as part of the same ostensible study. However, if conflict schemas do indeed function like other cognitive constructs, they should be able to influence individual thinking and behavioral choices without being consciously connected to the judgments at hand or overtly suggesting a preferred course of action (e.g., Bargh, 1996). Thus, support for these conclusions would be even stronger if we could look at whether conflict schemas activated in an apparently unrelated context are still able to influence conflict-related judgments. Hence, in Study 2, we used a lexical decision task to prime competitive or cooperative words. In this study, after completing an ostensibly-unrelated study containing the conflict-schema primes, participants were asked to indicate how they would respond to the Polish-German conflict described in Study 1. We expected that this unobtrusive procedure would be able to produce the basic interactive effect observed in our first study. Moreover, since the control variables introduced in Study 1 did not diminish the effects of momentarily activated conflict schemas, we do not consider them in this study or in Study 3.⁶

Study 2

Method

Participants

One-hundred first-year undergraduate students (78 women and 22 men, age range = 18-20 years) from the Warsaw School for Social Psychology in Poland participated in exchange for course credit.

Procedure

As in Study 1, two independent variables were considered: (1) individual differences in the need for closure and (2) conflict-schema accessibility, which was manipulated via a lexical decision task. Participants entered the laboratory individually and were asked to participate in two apparently unrelated

studies. The first study served as a basis for measuring the need for closure and manipulating conflict-schema accessibility, while the second served as a cover for measuring conflict-strategy preferences.

In what was ostensibly the first study, participants answered the Polish version of the Need for Closure Scale before being seated at a computer terminal to complete a lexical decision task. The task was presented as a study of the speed with which participants were able to distinguish meaningful words from meaningless strings of letters. Participants were randomly assigned to either the competitive- or cooperative-schema condition ($n = 50$ for each condition) and semantic content was used to manipulate the activation of a competitive or cooperative schema. The entire word-set consisted of 36 different Polish words, each of 6 to 8 letters, presented in random order. Twenty-five percent of words differed between the two conditions. In the competitive condition, the 9 conflict-related words dealt with competition, aggression, and hostility: *violence, aggression, rival, quarrel, sanction, war, enmity, opposition, and force*. In the cooperative condition, the 9 words dealt with agreement and fair play: *dialogue, debate, agreement, partner, talk, confidence, calm, equality, and reciprocity*. In both conditions, target words were interspersed with 9 neutral words (i.e., *chair, table, board, lamp, floor, entrance, corridor, building, and wall*) and 18 meaningless random-letter strings. Each word appeared on the screen for approximately 200 milliseconds and was then masked. After each word was presented, participants indicated whether what they saw was an actual word by pressing an assigned key. The entire task took about 10 minutes to complete. In order to familiarize participants with the procedure, four practice trials were presented which consisted of two words unrelated to conflict (*door* and *window*) and two random letter strings.

After completing the “first” study, participants moved to another room for the “second” study. Here, they completed the Strategies of Political Conflict Resolution Questionnaire, again in the context of the conflict between Poland and Germany over the commemoration of WWII-era German exiles (as per Study 1). Afterwards, participants were probed for suspicions about any relationship between the two studies and debriefed. One of the participants recognized the actual experimental manipulation and consequently this person’s results were dropped in the analyses reported below. Another person failed to fill out the dependent variable measure and was also dropped out from the subsequent analysis.

Measures

Need for closure. This was measured with the same Polish-language scale used in Study 1 ($\alpha = .81$, $M = 3.54$, $SD = 0.40$).

Conflict resolution strategies: Preference for competition over cooperation. As in Study 1, participants were asked to evaluate a standard set of strategies that might be used to resolve conflict. Responses to “competitive” and “cooperative” items from Strategies of Political Conflict Resolution Questionnaire (see Appendix B) were used to construct indices of *preference for competition* (the 8 “competitive” items; $\alpha = .78$, $M = 2.47$, $SD = 0.84$) and *preference for cooperation* (the 4 “cooperative” items; $\alpha = .66$, $M = 5.10$, $SD = 0.98$). Then, with the same regression procedure used in Study 1, an index of participants’ *preference for competition over cooperation* was constructed ($M = 2.18$, $SD = 1.19$).

Demographics. Again, two demographics were included: (1) gender, and (2) age (in years).

Results

In order to test our key hypothesis, we relied on a regression strategy identical to the one in Study 1. The results are summarized in Table 2. Model 1 examines the first-order effects of age, gender, the need for closure, and the conflict-schema manipulation. As in Study 1, the manipulation did not have a significant effect of its own on participants’ net preference for competition over cooperation ($b = .11$, $p > .10$). However, collapsing across the levels of this manipulation, Model 1 did reveal a positive relationship between the need for closure and net competitiveness ($b = .56$, $p < .01$), again supporting the bottom-up hypothesis that a high need for closure would be associated with net competitiveness. Nevertheless, Model 2 indicated that this main effect was qualified by the expected interaction between the need for closure and the dummy variable for the conflict-schema manipulation. As Table 2 indicates, the coefficient for this interaction was significant and in the right direction ($b = .38$, $p < .05$).

In order to probe this interaction, simple slopes for the relationship between need for closure and net competitiveness were calculated for participants in each conflict-schema condition; this was done using the same procedure employed in Study 1. The results of these analyses indicated that the

relationship between need for closure and net competitiveness was non-significant among participants primed with a cooperative conflict schema ($b = .08$, $SE\ b = .24$, $p > .70$), but positive and significant among participants primed with a competitive schema ($b = .85$, $SE\ b = .30$, $p < .01$). A graphical representation of this interaction can be found in Figure 2. Thus, our hypothesis was supported even under conditions when the relevant schemas were brought to mind in an implicit fashion, with no overt reference to particular groups or group-relevant social norms.⁷

Discussion

The results of Study 2 replicate and extend the findings of Study 1. Again, they indicate that momentarily accessible conflict schemas moderate the relationship between the need for closure and competitive conflict-strategy preferences. However, the results of Study 2 also show that the basic interaction between the need for closure and schema accessibility remains significant even when the relevant conflict schemas are unobtrusively activated in an ostensibly unrelated context that participants do not consciously connect with the critical judgment task.

Nevertheless, Studies 1 and 2 still leave a few matters unresolved. First, both studies were designed around a nationally-salient issue with connections to one of the most severe conflicts in human history, i.e., World War II. This context may have stacked the deck in favor of competition, raising important questions about the generalizability of these findings to other conflicts. In particular, it is important to ask whether the interactive hypothesis would receive as much support in conflicts that are less grand in scale and more plausibly open to cooperative resolution. Second, the techniques used in Studies 1 and 2 may have primed not only the schemas themselves but also suggestions about how to deal with the conflict in question. This raises the possibility that our manipulations may have directly activated conflict strategies, rather than the broader conflict schemas that should exert an influence on conflict-strategy preferences.

In an effort to address these matters, we conducted a third study. This study relied on the same basic procedure as Study 2. However, in an effort to generalize our findings to a somewhat less serious conflict, we asked participants from the Warsaw area in Poland to make judgments about a local conflict

of less severity than the nationally-salient German-exile issue dealt with in Studies 1 and 2. Moreover, in order to avoid priming conflict strategies along with broader conflict schemas, the words chosen to prime the competitive and cooperative schemas in this study did not make reference to particular conflict-resolution strategies.

Study 3

Method

Participants

Forty-five students (26 women and 19 men; age range = 19-31 years) from the Warsaw School of Economics in Poland participated in the study.

Procedure

The procedure in Study 3 was similar to the one in Study 2. Participants entered the laboratory individually and were asked to participate in two supposedly unrelated studies, each conducted by a different graduate student. Participants were told that the “first” study concerned the impact of graphical material on subsequent semantic recognition. They then completed the need for closure questionnaire and demographic questions and watched a short film (a 5-minute excerpt from *Microcosmos*). In reality, the purpose of the film was to clear out participants’ working memory before the next part of the procedure. Afterwards, they were asked to perform a lexical decision task on a computer. This task – similar to the one used in Study 2 – contained the conflict-schema manipulation. Participants were randomly assigned to either the competitive-schema condition ($n = 21$) or the cooperative-schema condition ($n = 24$). In the task, participants were presented with 32 different Polish words, 8 of which were conflict-related. In the competitive condition, the 8 conflict-related words were *enemy*, *rival*, *force*, *disagreement*, *enmity*, *hate*, *harm*, and *dominance*. In the cooperative condition, the 8 words were *trust*, *equality*, *agreement*, *peace*, *unity*, *solidarity*, *community*, and *partnership*. In Polish, all of these words were of similar length, and they were purposefully chosen not to directly refer any conflict-related behavior. In each condition, the target words were interspersed with 8 neutral words (*wall*, *shelf*, *chair*, *blackboard*, *table*, *lamp*, *floor*, and *corridor*) and 16 meaningless random-letter strings. After finishing this task, participants moved on to the

“second” study, where they completed the Strategies of Political Conflict Resolution Questionnaire after reading about a local political conflict in the Warsaw area. This conflict dealt with a motion to rename a Warsaw area street currently named after communist-era political figures (see Appendix A for the exact wording of the conflict stimulus). Finally, participants were probed for suspicions about any relationship between the two studies and then fully debriefed.

Measures

Need for closure. This was measured with the same Polish language-scale used in Study 1 ($\alpha = .74$, $M = 3.56$, $SD = 0.40$).

Preference for competition over cooperation. In this study, participants again completed the Strategies of Political Conflict Resolution Questionnaire (see Appendix B). Scales measuring *preference for competition* ($\alpha = .73$, $M = 2.70$, $SD = 0.83$) and *preference for cooperation* ($\alpha = .61$, $M = 5.07$, $SD = 0.95$) were constructed from item sets identical to those used in Studies 1 and 2. Using the same regression procedure employed in Studies 1 and 2, an index of participants’ *preference for competition over cooperation* was then constructed ($M = 3.33$, $SD = 1.83$).

Demographics. As before, two demographics were included: (1) gender and (2) age (in years).

Results

We began by examining our main hypothesis with regard to participants’ net preference for competition over cooperation. To this end, we relied on a regression strategy identical to that used in Studies 1 and 2. The results are summarized in Table 3. Model 1 shows the first-order effects of age, gender, the need for closure, and the dummy variable corresponding to the conflict-schema manipulation. As in Studies 1 and 2, the conflict-schema manipulation did not have a significant effect of its own on participants’ preference for competition over cooperation ($\underline{b} = -.04$, $p > .10$). Moreover, in contrast to Studies 1 and 2, Model 1 *did not* reveal a significant relationship between the need for closure and net competitiveness ($\underline{b} = .70$, $p > .10$). Nevertheless, Model 2 revealed the expected interaction between the need for closure and the conflict-schema variable ($\underline{b} = 1.36$, $p < .05$). Simple slope analyses indicated that

the relationship between need for closure and preference for competitiveness over cooperation was negative and non-significant among participants in the cooperative-schema condition ($b = -.68, p > .40$), but positive and significant among those in the competitive-schema condition ($b = 2.04, p < .05$).⁸ A graphical representation of this interaction is shown in Figure 3.

General Discussion

The main purpose of the studies presented in this paper was to establish that social situations may be structured in order to mitigate the competitive tendencies of people likely to choose competition over cooperation and escalate intergroup conflicts. These studies further develop a theoretical model proposed in earlier studies and provide additional evidence for it (Federico, Golec & Dial, 2005; Golec & Federico, 2004). In this model, we have argued that the need for closure should influence conflict-strategy preferences via two processes. On one hand, a high need for closure should result in a stronger desire for decisive outcomes and simple black-versus-white distinctions between ingroup and outgroup, making a preference for competition over cooperation more likely via a *bottom-up* process. On the other hand, the need for closure should also shape conflict-strategy preferences by increasing susceptibility to accessible conflict schemas via a *top-down* process. Depending on what type of conflict schema is salient, these two effects may work with or against one another. When a competitive schema is salient, a greater adherence to accessible constructs should reinforce the bottom-up effect of the need for closure: both should push people in the *general* direction of a preference for competition over cooperation. However, when a cooperative schema is accessible, the top-down effect of greater adherence to a cooperative schema should counteract the bottom-up tendency toward greater competition. Taken together, these considerations suggest that a high need for closure should be more strongly associated with competitiveness when a competitive conflict schema is accessible, while having no relationship with competition when a cooperative schema is accessible. This hypothesis implies that the competitive tendency associated with a high need for closure might be neutralized in certain circumstances.

Earlier correlational studies found support for this interactive hypothesis in the context of chronically accessible conflict schemas known to be associated with enduring worldviews and social

identities (e.g., Federico, Golec, & Dial, 2005; Golec & Federico, 2004; Golec, 2004; for a review, see Golec de Zavala, 2006). However, our model assumes that the relationship between need for closure and conflict strategy preferences should be influenced not only by chronically-accessible schemas, but also by momentarily accessible ones. Consistent with these claims, the results of the three experimental studies reported here indicate that a cooperative conflict schema can be temporarily activated by situational cues and attenuate the preference for competition otherwise likely to be displayed by people with a high need for closure. It is important to note that these results indicate that individuals under a high need for closure assimilate their conflict-strategy preferences to the prescriptions of accessible schemas only when the prescriptions are consistent with their bottom-up tendency to prefer competition. If an accessible conflict schema prescribes cooperation, these individuals' baseline tendency to prefer competition in intergroup conflict is diminished, but their preference for cooperative strategies does not increase. However, even if the increased accessibility of cooperative conflict schemas does not result in greater support for cooperative conflict strategies among people under a high need for closure, our findings are still quite optimistic. They indicate that in certain conditions the destructive tendencies of people who are otherwise prone to competition can be at least neutralized.

These studies also provide a clearer picture of the relationship between the independent and dependent variables in our model. The correlational design of our previous studies limited our ability to make firm causal inferences about the relationship between conflict schemas and conflict-strategy preferences, leaving room for alternative interpretations. For example, one could argue that people under a high need for closure have a stronger tendency to justify and rationalize their conflict-strategy choices, leading them to adopt beliefs associated with a competitive conflict schema. However, the studies reported here *manipulated* the accessibility of cooperative and competitive conflict schemas, rather than measuring predispositions known to be linked to chronically-accessible conflict schemas. Despite this critical difference, these studies produced the same pattern of results as our earlier correlational studies. Moreover, these effects held across a variety of experimental paradigms. For example, in Study 1, we directly activated a cooperative or a competitive conflict schema using passages which described a recent

conflict between Poles and Germans as either a discussion or a confrontation. However, in Study 2 and 3, we activated a cooperative or a competitive conflict schema by unobtrusively presenting participants with words related to either the cooperative or competitive aspects of conflict in an ostensibly unrelated lexical decision task. Thus, our results clearly and consistently support the conclusion that the conflict schemas behave as an exogenous variable vis-à-vis conflict strategy preferences, as suggested by our theory.

In addition, our results show that the interactive effect of the need for closure and conflict-schema accessibility on conflict strategy preferences holds across a variety of political conflicts differing in scope and in potential for constructive resolution or destructive escalation. In Studies 1 and 2, we asked participants to make judgments about a highly-charged, nationally-salient conflict over memorials for post-World War II German exiles from Poland. However, in Study 3, participants were asked to make judgments about a less serious – and less visible – conflict between local authorities in Warsaw, a conflict which had a larger potential for cooperative resolution. Despite these marked differences in severity and salience, we found clear support for our interactive hypothesis in both cases.

Taken together, these findings imply that conflict schemas interact with the need for closure to influence decisions about conflict not only when various predispositions make them *chronically* accessible, but also when features of a particular situation *temporarily* activate them. Importantly, the fact that we can experimentally activate any conflict schema suggests that most people have the potential to see both the cooperative and competitive aspects of conflicts, even if certain individual characteristics or situational cues make them more likely to rely on one rather than the other most of the time. This means that interventions aimed at increasing the salience of cooperative schemas may help steer people away from destructive approaches to conflict. Nevertheless, the present studies still leave us with unanswered questions about *whether* and *for how long* recently-activated conflict schemas can overcome the guidance provided by chronically-accessible ones and whether this would differ for people already predisposed to favor certain approaches to conflict, like those high in the need for closure. Further research will be needed in order to address these questions.

References

- Aiken, L. S. & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Archer, D., & Gartner, R. (1984). *Violence and crime in cross-national perspective*. New Haven, CT: Yale University Press.
- Bargh, J. A. (1996). Automaticity in social psychology. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 169-183). New York: Guilford.
- Bargh, J. A., & Pietromonaco, P. (1982). Automatic Information Processing and Social Perception: The influence of trait information presented outside of conscious awareness on impression formation. *Journal of Personality and Social Psychology*, 43, 437-449.
- Bar-Tal, D., Kruglanski, A.W., & Klar, Y. (1989). Conflict termination: An epistemological analysis of international cases. *Political Psychology*, 10, 233-255.
- Castano, E., Sacchi, S., & Gries, P. H. (2003). The perception of the other in international relations: Evidence for the polarizing effect of entitativity. *Political Psychology*, 24, 449-468.
- Cronbach, L. J., & Furby, L. (1970). How should we measure “change” – or should we? *Psychological Bulletin*, 74, 68-80.
- Deutsch, M. (1973). *The resolution of conflict: constructive and destructive process*. New Haven and London: Yale University Press.
- de Dreu, C., Koole, S.L., & Oldersma, F.L. (1999). On the seizing and freezing of negotiator inferences: Need for cognitive closure moderates the use of heuristics in negotiation. *Personality and Social Psychology Bulletin*, 25, 348-362.
- de Dreu, C., Koole, S.L., & Steinel, W. (2000). Unfixing the fixed pie: A motivated information-processing approach to integrative negotiation. *Journal of Personality and Social Psychology*, 79, 975-987.
- De Dreu, C., Beersma, B., & Stroebe, K. (in press). Motivated information processing, strategic choice, and the quality of negotiated agreement. *Journal of Personality and Social Psychology*.

- De Grada, E., Kruglanski, A. W., Mannetti, L., & Pierro, A. (1999). Motivated cognition and group interaction: Need for closure affects the contents and processes of collective negotiations. *Journal of Experimental Social Psychology*, 35, 346-365.
- Federico, C., Golec, A., & Dial, J. (2005). The relationship between need for closure and support for military action against Iraq: Moderating effects of national attachment. *Personality and Social Psychology Bulletin*, 31, 621-632.
- Ford, T. E., & Kruglanski, A. W. (1995). Effects of epistemic motivations on the use of accessible constructs in social judgment. *Personality and Social Psychology Bulletin*, 21, 950-962.
- Gelfand, M. J., Nishii, L. H., Holcombe, K. M., Dyer, N., Ohbuchi, K., & Fukuno, M. (2001). Cultural influences on cognitive representations of conflict interpretations of conflict episodes in the United States and Japan. *Journal of Applied Psychology*, 86, 1059-1074
- Golec, A. (2001). Konserwatyzm polityczny i potrzeba poznawczego domknięcia w badaniach polskich. (Political conservatism and the need for cognitive closure in Polish studies). *Studia Psychologiczne (Psychological Studies)*, 1, 423-58.
- Golec, A. (2002a). Cognitive skills as predictor of attitudes toward political conflict: A study of Polish politicians. *Political Psychology*, 4, 731-759.
- Golec, A. (2002b). *Cognitive underpinnings of strategic choice in political conflict: the role of information processing or conflict schema activation?* Paper presented at the Annual Meeting of International Society of Political Psychology, Berlin, July 2002.
- Golec, A. (2002c). Need for cognitive closure and political conservatism: studies on the nature of the relationship. *Polish Psychological Bulletin*, 4, 5-12.
- Golec de Zavala, A. (2005). Kwestionariusz Strategii Rozwiązywania Konfliktu Politycznego (Political Conflict Resolution Questionnaire). *Studia Psychologiczne (Psychological Studies)*.
- Golec de Zavala, A. (2006). Cognitive and motivational factors underlying individual responses to political conflicts. In A. Golec de Zavala & K. Skarżyńska (Ed.), *Understanding social change: political psychology in Poland*. NY Hauppauge: NOVA Publisher Ltd.

- Golec, A., & Federico, C. M. (2004). Understanding responses to political conflict: Interactive effects of the need for closure and salient conflict schemas. *Journal of Personality and Social Psychology*, 87, 750-762.
- Golec, A., Federico, C. M., Cislak, A., & Dial, J. (2004). Need for closure, national attachment, and attitudes toward international conflict: Distinguishing the roles of patriotism and nationalism. *Advances in Psychology Research*, 33, 231-251.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133-168). New York: Guilford Press.
- Holsti, O. R. (1996). *Public opinion and American foreign policy*. Ann Arbor, MI: University of Michigan Press.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339-375.
- Kruglanski, A. W., & Freund, T. (1983). The freezing and unfreezing of lay inferences: Effects of impression primacy, ethnic stereotyping, and numerical anchoring. *Journal of Experimental Social Psychology*, 19, 448-468.
- Kruglanski, A.W., Pierro, A., Mannetti, L. & DeGrada, E. (in press). Groups as epistemic providers: Need for closure and the unfolding of group centrism. *Psychological Review*.
- Kruglanski, A. W., Shah, J. Y., Pierro, A., & Mannetti, L. (2002). When similarity breeds content: Need for closure and the allure of homogenous and self-resembling groups. *Journal of Personality and Social Psychology*, 83, 648-662.
- Kruglanski, A. W., & Webster, D. M. (1996). Motivated closing of the mind: “seizing” and “freezing”. *Psychological Review*, 103, 263-283.
- Long, J. S., & Ervin, L. H. (2000). Using heteroscedasticity consistent standard errors in the linear regression model. *American Statistician*, 54, 217-234.
- Pearson, V. M., & Stephan, W. G. (1998). Preferences for styles of negotiation: A comparison of Brazil

- and the U.S. *International Journal of Intercultural Relations*, 22, 67-83.
- Pruitt, D. G., & Carnevale, P. (1982). The development of integrative agreements. In: P. Derlega & J. Grzelak (Eds.) *Cooperative and helping behavior: Theories and research* (pp. 151-181). New York: Academic Press.
- Pruitt D. G., Rubin, J. Z., & Kim, H. S. (1994). *Social conflict*. New York: Random House.
- Ross, M. (2001). Psychocultural Interpretations and Dramas: Identity Dynamics in Ethnic Conflict. *Political Psychology*, 22, 157-178.
- Shah, J. Y., Kruglanski, A. W., & Thompson, E. P. (1998). Membership has its (epistemic) rewards: Need for closure effects on ingroup bias. *Journal of Personality and Social Psychology*, 75, 383-393.
- Skarzynska, K., & Miskiewicz, D. (2001). *Skala Postaw Narodowych (National Attitudes Scale)*. Unpublished manuscript, Institute of Psychology, Polish Academy of Sciences, Warsaw.
- Suedfeld, P., & Tetlock, P. (1977). Integrative complexity of communication in international crises. *Journal of Conflict Resolution*, 21, 169-168.
- Tetlock, P. E. (1992). The impact of accountability on judgment and choice: Toward a social contingency model. In M. Zanna (Ed.), *Advances in Experimental Social Psychology*, Vol. 25 (pp. 331-376). San Diego, CA: Academic Press.
- Thompson, E. P., Roman, R. J., Moskowitz, G. B., Chaiken, S., & Bargh, J. A. (1994). Accuracy motivation attenuates covert priming effects: The systematic reprocessing of social information. *Journal of Personality and Social Psychology*, 66, 474-489.
- Tinsley, C. (2001). How Negotiators Get to Yes: Predicting the Constellation of Strategies Used Across Cultures to Negotiate Conflict. *Journal of Applied Psychology*, 86, 583-593.
- Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, 67, 1049-1062.
- Webster, D.M., Richter, L., & Kruglanski, A.W. (1996). On leaping to conclusions when feeling tired: Mental fatigue effects on impression formation. *Journal of Experimental Social Psychology*, 32, 181-195.

APPENDIX A

Descriptions of Polish-German Conflict (Studies 1 and 2)

The main problem in contemporary Polish-German relations is the new question of commemorating Germans who were exiled from Poland as a result of the peace treaty which ended World War II. Germans want to build a monument commemorating these exiles. But Poles oppose building such a monument, since they see it as disrespectful to Poles killed by Germany during the war.

Competitive conflict-schema condition (Study 1):

Until Germans abandon these plans, Poles should not talk to them – not even about European integration – and they should be ready to use all possible means to prevent the depiction of Poles as the aggressors and Germans as the victims in World War II.

Cooperative conflict-schema condition (Study 1):

However, Poles wish to negotiate with representatives of Germany. Poland will soon join Germany in the European Union. Therefore, in the spirit of European solidarity, Germany and Poland should engage in dialogue to settle this issue.

Descriptions of Conflict over Street Name in Warsaw (Study 3)

A motion to rename a street in Warsaw's Mokotow district divided authorities on the City Council. Rightist politicians want to rename the street, claiming that it illegitimately commemorates Polish Communist Party activists from the Stalinist era. However, representatives of centrist political parties do not want the change. They argue that city authorities should concentrate on the real, concrete problems the city faces, and they want to avoid unnecessarily stirring up issues from the past. The problem also has a practical dimension: it will cost money to change the address tables and personal documents for all inhabitants living on the street in question. On one hand, city authorities representing the political right claim that the noble goal justifies the costs. On the other hand, authorities representing the political center do not want to spend the taxpayers' money to finance what they regard as purely symbolic gestures.

APPENDIX B

Items from the Strategies of Political Conflict Resolution Questionnaire (Golec, in press)

Now imagine that you are an important and powerful representative of your party. You can decide about its actions in this conflict. Take a while to think over what sort of actions would you undertake. Below you will find examples of various actions parties can assume in conflicts. Please indicate how likely it is that you would choose a given action as the representative of your party.

Competitive strategies:

1. You will use fraud and deception in order to weaken your opponent's position
2. You will spread negative information about your opponent
3. You will oppose all of your opponent's proposals and pressures
4. You will act as if you are never giving in, in order to discourage your opponent
5. You will criticize all of your opponent's actions
6. You will attack your opponent
7. You will demonstrate your strength in order to intimidate your opponent
8. You will humiliate and disregard your opponent

Cooperative strategies:

9. You will explain your position and listen to your opponent: you will search for a 'middle-of-the road' solution
10. You will propose concessions and indicate what you want the other side to concede
11. You will calm your opponent down and convince them that the situation is not as bad as it seems
12. Together with your opponent, you will define your problem and search the best solution

Notes

¹ Factor analyses conducted on the full set of items consistently indicate that the competitive and cooperative items fall on separate factors (see Golec de Zavala, 2005; Golec & Federico, 2004).

² Of course, competition and cooperation are not the *only* possible responses to political conflict. For example, other strategies include *yielding*, i.e., giving in to the opponent's demands; and *avoidance*, i.e., withdrawal from the conflict (Golec de Zavala, 2005). However, competition and cooperation are typically the most culturally and cognitively salient alternatives for dealing with conflict. In particular, they represent the two primary choices considered by real political decision-makers, and they are the two options most frequently examined in studies of conflict-related decision-making (Deutsch, 1973; Pruitt & Carnevale, 1982; Pruitt, Rubin & Kim, 1994; Tinsley, 2001). Therefore, in the studies reported here, we focus chiefly on competition and cooperation.

³ Note also that Model 1 in Table 1 reveals a significant *negative* effect of conservatism, such that conservatives show *less* of a preference for competition over cooperation. This would appear to run counter to findings suggesting that conservatism is associated with greater intergroup competitiveness (Federico et al., 2005; Jost et al., 2003). However, it is best not to attribute too much substantive significance to this finding. The significance of these negative coefficients appears to be due to a high level of collinearity between conservatism and conflict perceptions ($r = .33, p < .01$). When conflict perceptions is dropped from the Model 1 equation, the effect of conservatism becomes non-significant ($b = -.23, p > .25$). Moreover, the bivariate correlation between conservatism and preference for competition over cooperation is non-significant ($r = -.11, p > .30$). Together, these additional observations suggest that the significant negative coefficient in Model 1 is merely due to a suppression effect.

⁴ For the competition-only analyses, the regression equation was significant in Model 1, $F(9, 62) = 7.44, p < .001, R^2 = .388$; and in Model 2, $F(10, 61) = 7.15, p < .001, R^2 = .444$.

⁵ For the cooperation-only analyses, the regression equation was significant neither in Model 1, $F < 1, p > .50, R^2 = .087$; nor in Model 2, $F < 1, p > .50, R^2 = .087$.

⁶ Two of the chronic-predisposition controls – nationalism and conservatism – *did* have significant effects in the first model estimated in Study 1. Despite this fact, we opted not include them in Studies 2 and 3. Our primary reason for doing this is that chronic predispositions – even when influential in their own regard – are not the main focus of the studies reported here. Our main rationale for including them in the Study 1 analyses was demonstrate that the need for closure and temporarily-activated conflict schemas have an interactive effect over and above the influence of chronic predispositions. The significant interaction found in Study 1 suggests that this was the case. Having shown this, we left these controls out of our subsequent studies for the sake of brevity in the administration of the experiments and for the sake of analytic simplicity in our regression models.

⁷ As in Study 1, the competitiveness and cooperativeness indices were examined separately in regressions similar to those in Table 2. The results were similar to those found in Study 1, so we review them only briefly here. When preference for competition was used as the dependent variable, the interaction between need for closure and conflict schema accessibility was significant in Model 2 ($b = .36, p < .05$). Simple slope analyses indicated that the relationship between need for closure and preference for competition alone was non-significant when a cooperative schema was activated ($b = .14, p > .10$), but positive and significant when the competitive schema was made accessible ($b = .86, p < .001$). When preference for cooperation was examined, the interaction failed to reach significance in Model 2 ($p > .30$).

⁸ As before, the competitiveness and cooperativeness indices were examined separately in regressions similar to those in Table 3. The results were similar to those found in Studies 1 and 2. When competition was used as the dependent variable, the interaction between need for closure and schema accessibility was marginally significant in Model 2 ($b = .53; p < .07$). Simple slope analyses indicated that the relationship between need for closure and competition was non-significant when a cooperative schema was activated ($b = -.04, p > .50$), but positive and significant when the competitive schema was activated ($b = 1.03, p < .01$). When cooperation was used as the dependent variable, the key interaction was again non-significant in Model 2 ($p > .50$).

Table 1

Interactive Effects of the Need for Closure and Conflict Schema Activation on Net Preference forCompetition over Cooperation (Study 1)

Predictor	Competition over cooperation			
	Model 1		Model 2	
	<u>b</u>	<u>SE b</u>	<u>b</u>	<u>SE b</u>
Age	-.21 ⁺	(.12)	-.19	(.12)
Gender	.30*	(.15)	.29 ⁺	(.15)
Conservatism	-.39*	(.18)	-.32 ⁺	(.17)
Nationalism	.57*	(.28)	.60*	(.28)
Patriotism	-.14	(.16)	-.16	(.17)
German entitativity	.29 ⁺	(.17)	.31 ⁺	(.16)
Conflict perceptions	.54**	(.17)	.52**	(.16)
Need for closure	.90*	(.39)	.60 ⁺	(.37)
Conflict schema	.01	(.14)	-.01	(.14)
NFC x Conflict schema	--	--	.72*	(.35)
Constant	3.61***	(.14)	3.60***	(.15)
F (degrees of freedom)	7.11 (9, 62) ***		7.07 (10, 61) ***	
R ²	.413		.444	
N	72		72	

Note. Entries are unstandardized OLS regression coefficients and Huber-White robust standard errors. Standard errors are given in parentheses.

⁺p<.10. *p<.05. **p<.01. ***p<.001.

Table 2

Interactive Effects of the Need for Closure and Conflict Schema Activation on Net Preference for Competition over Cooperation (Study 2)

Predictor	Model 1		Model 2	
	<u>B</u>	<u>SE b</u>	<u>B</u>	<u>SE b</u>
Age	-.08	(.07)	-.09	(.06)
Gender	.03	(.11)	.03	(.10)
Need for closure	.56*	(.22)	.47*	(.20)
Conflict schema activation	.11	(.10)	.12	(.10)
NFC x Conflict schema	--	--	.38*	(.19)
Constant	2.13***	(.10)	2.10***	(.10)
<u>F</u> (degrees of freedom)	2.64 (4, 93) *		2.83 (5, 92) *	
<u>R</u> ²	.102		.126	
<u>N</u>	98		98	

Note. Entries are unstandardized OLS regression coefficients and Huber-White robust standard errors. Standard errors are given in parentheses.

Table 3

Interactive Effects of the Need for Closure and Conflict Schema Activation on Preference for Competition over Cooperation (Study 3)

Predictor	Model 1		Model 2	
	<u>b</u>	<u>SE b</u>	<u>B</u>	<u>SE b</u>
Age	.21	(.11)	.19	(.11)
Gender	.48	(.30)	.48	(.29)
Need for closure	.70	(.87)	.68	(.69)
Conflict schema activation	-.04	(.31)	-.07	(.31)
NFC x Conflict schema	--	--	1.36*	(.67)
Constant	3.53***	(.28)	3.51***	(.28)
<u>F</u> (degrees of freedom)	1.79 (4, 39)		3.00 (5, 38) *	
<u>R</u> ²	.147		.225	
<u>N</u>	44		44	

Note. Entries are unstandardized OLS regression coefficients and Huber-White robust standard errors. Standard errors are given in parentheses.

⁺p<.10. *p<.05. **p<.01. ***p<.001.

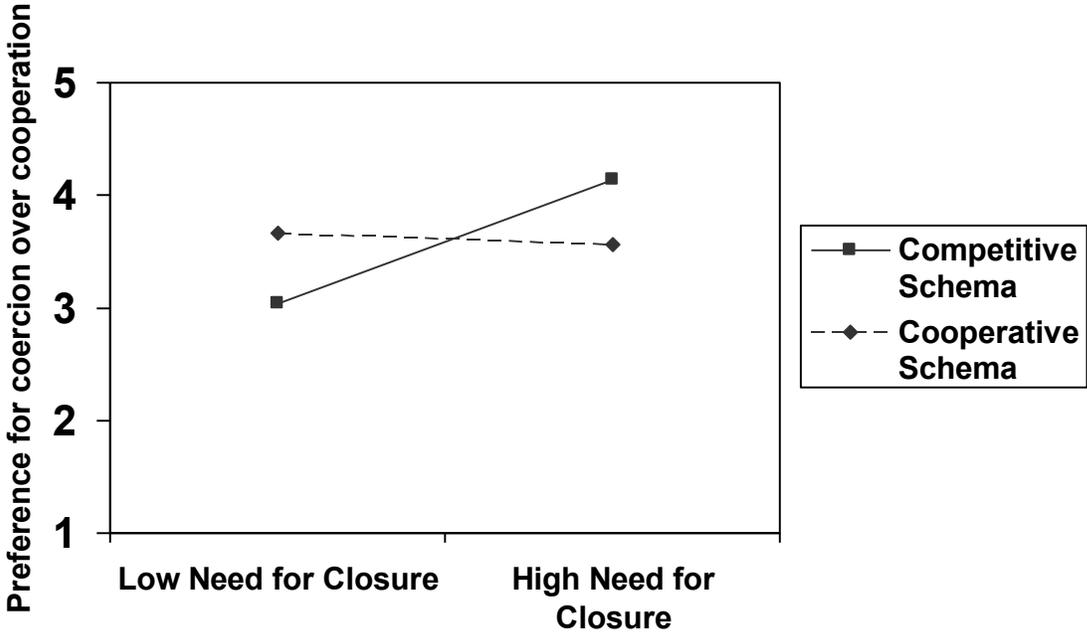
Figure Captions

Figure 1. The relationship between the need for closure and preference for competition over cooperation among participants primed with cooperative and competitive conflict schemas (Study 1).

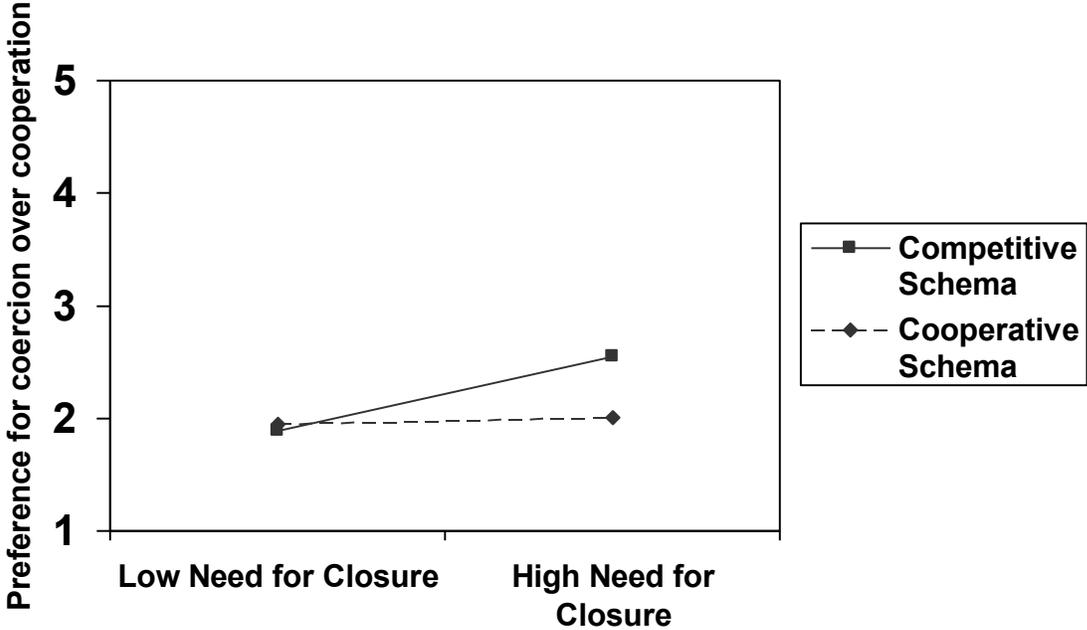
Figure 2. The relationship between the need for closure and preference for competition over cooperation among participants primed with cooperative and competitive conflict schemas (Study 2).

Figure 3. The relationship between the need for closure and preference for competition over cooperation among participants primed with cooperative and competitive conflict schemas (Study 3).

Study 1



Study 2



Study 3

