Chapter 14 Mediating and Moderating Effect of Tension on Withdrawal: Commitment Relationship in Construction Dispute Negotiation

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Abstract The success or failure of a negotiation depends on the commitment of the negotiators for a settlement. Withdrawal refers to a situation in which a construction negotiator loses the interest to continue with a negotiation. A withdrawing negotiator is likely to abandon a negotiation. It is proposed that the higher the commitment of the negotiators, the less likely they will lose interest and hence a greater chance to achieve negotiated settlement. Furthermore, feeling tensed or relaxed is having a bearing on the cognitive reasoning of a negotiator. A certain level of tension helps negotiators stay focused on the disputing issues and engenders commitment. Tension is affecting commitment thus withdrawal. The roles and impact of tension on the withdrawal-commitment relationship are investigated in this study. It is hypothesised that: (1) tension mediates the withdrawal-commitment relationship, and (2) tension moderates the withdrawalcommitment relationship. With data collected from experienced construction dispute negotiators, regression analyses were conducted to test the hypotheses. Tensioned negotiators are generally more committed to a negotiated settlement than their low-tensioned counterparts. However, if the withdrawing tendency reaches its threshold value, the loss of commitment of high-tensioned negotiators is much quicker than their low-tensioned counterparts. This reminds managers that optimal level of tension can mobilise human resources to the betterment of a negotiated settlement, but excessive level tension can raise the state of withdrawal of the negotiators and lower commitment. In this regard, management may adjust the tension level by varying the settlement targets as well as changing the memberships of the negotiation team.

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14.1 Introduction

For construction organisations, one way to enhance their competitive edge is to reduce non-productive cost such as those used in handling dispute (Cheung et al. 2000). It is well accepted that negotiation is the most cost-effective means to resolve dispute. However, not every negotiation ends with settlement. Sometimes, a dispute is just non-negotiable due to irreconcilable divergence in interest of the disputing parties. In other instances, a negotiation fails simply because one or more of the negotiators have lost interest to continue; a situation identified as withdrawal (Chow and Cheung 2008). Losing interest to continue (hereafter as withdrawal) has a negative effect on the form of commitment (hereafter as commitment) that is manifested by a negotiator's continuing effort to invest in a relationship as well as an acceptance of joint goals and values. Thus, a negotiated settlement is only possible if the negotiators are committed to achieving it. The conceptual link between withdrawal and commitment has been studied in meta-analytic and causation studies (Mobley et al. 1979; Steel and Ovalle 1984). Commitment has been examined as both an antecedent and a consequence of withdrawal (Black 2008; Cullen et al. 2003; Mowday et al. 1984). Mathieu and Zajac (1990) suggested that a low withdrawing negotiator is more likely to engage in "extra-role" behaviours resulting in inspirational commitment. A negotiator with high level of commitment, in turn, has a better chance to derive common goals with the counterpart and is less likely to withdraw (O'Reilly and Chatman 1986). On the contrary, low commitment indicates that a negotiator perceives the value of maintaining the relationship with the counterpart to be low and thus displays high level of withdrawing behaviour (Mathieu and Zajac 1990). Moreover, three observations suggest that there may be intervening variable in the withdrawalcommitment relationship. First, a high withdrawing negotiator without pressure discourages his counterpart from resolving the dispute by delaying his response through inaction and isolation (Deutsch et al. 2006; Simonson and Staw 1992). Second, a high withdrawing negotiator under great tension is likely to make unwarranted pre-mature make-or-break decision. He is too keen to get out of the negotiation. His strategies are therefore either denial or aggression (Deutsch et al. 2006; Lee et al. 2006; Watson et al. 1992). Third, a low withdrawing negotiator who is able to suppress the effect of tension is in a better position to initiate collaborative responses. Notable manifestations include compassionate, empathetic and committal negotiating behaviour (Deutsch et al. 2006).

Negotiating construction dispute is stressful and the tension arising there-from influences the way a negotiator values and prioritises options (Fryer 2004; Schwarz and Clore 2007). Certain level of tension arising from the need to obtain desired result may urge a negotiator to stay focused on getting the dispute settled (Nordqvist et al. 2004). However, a stressful negotiator may view a looming negotiation as threat. He may hastily reach a suboptimal deal and, in extreme situation, even walk off without any conscientious attempt for a settlement (O'Connor and Arnold 2001). In this regard, it is proposed that the level of

withdrawal (independent control variable) under the influence of tension (independent mediating and moderating variable) predicts the level of commitment (dependent variable). Research has pointed explicitly to the important roles of tension in a withdrawal-commitment relationship (Morgan and Hunt 1994; Sommer et al. 1996). A better understanding of its roles shall reduce withdrawal and thereby maintain the chance of having a negotiated settlement. The contribution of this study is the holistic treatment of tension, withdrawal, and commitment in construction dispute negotiation. It is hypothesised that tension both mediates and moderates the withdrawal-commitment relationship. The mediating and moderating effects of tension in the withdrawal-commitment relationship are first discussed. Then, tension, withdrawal, commitment and their attributes in construction dispute negotiation are elaborated seriatim.

14.2 Tension as a Mediator

Negotiators are supposedly committed to achieve optimal outcomes. However, the drives for economic return is countered by the call for psychological relax. Negotiators may fail to unfreeze energy and get motivated to step up their efforts if the tension level is too low (Deutsch et al. 2006). Moreover, too much tension would lead to psychological collapse because of a negotiator's inability to cope with the stress (O'Connor and Arnold 2001; Yiu and Cheung 2007). Tension as a mediator in the withdrawal-commitment relationship represents the generative mechanism through which withdrawal is able to influence commitment (Baron and Kenny 1986). In general, high-tensioned negotiators have a more negative attitude toward commitment than their low-tensioned counterparts (Deutsch et al. 2006; Lee et al. 2006). It is assumed that the relationships among withdrawal, tension, and commitment vary across project-specific parameters (e.g. contract procurement method, project type, etc.). In this connection, the withdrawal-tension (withdrawal \rightarrow tension) and tension-commitment (tension \rightarrow commitment) relationships are further discussed.

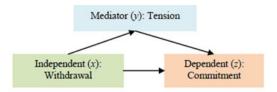
14.2.1 Withdrawal-Tension Relationship (Withdrawal → Tension)

Withdrawal is manifested by a reduction in a negotiator's attention to or interest in a negotiation. Blau (1985) first defined three categories of withdrawal; unavoidable, stable periodic and increasing chronic. Roznowski and Hanisch (1990) classified withdrawal as either excusable or inexcusable. The decision to terminate a negotiation could be described as a sequence of cognitive stages whereby the potential withdrawer feels dissatisfied with his prevailing status in the negotiation (Mobley et al. 1979). Each successive step represents an increased and cumulative

propensity to withdraw. A withdrawing negotiator first decreases performance, displays a bad attitude, refuses working to potential and broadcasts limitations in achieving a settlement. Then, he usually expresses some forms of escape like displaying unfavorable negotiation behaviour, arriving late, leaving early or complete absence from project meetings with the aim of minimising the time to be spent on the negotiating task (Hanisch and Hulin 1991). It is followed by an "intention to search for alternatives" and an "active search and evaluation of alternatives" suggesting his intention to remove himself from both the situation and his assumed role (Hanisch and Hulin 1991; Mobley et al. 1979), Finally, breakdown is resulted. Several studies have found that withdrawal is positively associated with tension (Bhanugopan and Fish 2006). According to Sheridan and Abelson (1983), a negotiator's progression through different stages of withdrawal is mediated by his perception of the anticipated severity of tension. Tension exacerbates the 'avoiding' effect of withdrawal and their resonance causes a negotiator to shirk his duty or even to walk away from the negotiation table in order to stay away from the stressful environment. Thus, increasing withdrawal and progressive dysfunctional negotiators' behaviours are exemplified by tension (Chow and Cheung 2008).

14.2.2 Tension-Commitment Relationship (Tension → Commitment)

Optimum level of tension of a negotiation would mobilise psychological resources to the achievement of a negotiated settlement (Deutsch et al. 2006). However, excessive tension lowers a negotiator's commitment (Jaros et al. 1993). Anderson and Weitz (1992) observed that asymmetries in commitment probably are the consequences of previous tense negotiation experiences (Mowday et al. 1984; Simonson and Staw 1992). Tension evokes the illusion that negotiators can act irrationally and uneconomically (Lempereur and Colson 2010). A tense negotiator is more willing to abandon a relationship and less willing to reciprocate compromises made by his committed counterpart. Furthermore, the unilateral commitment to a negotiated settlement made by the counterpart invites the practice of opportunism in a stressful environment (Delerue-Vidot 2006; Gundlach et al. 1995). Tangible progress to a resolution is possible only if both negotiators are committed to a proposal (MacFarlane et al. 2003). Mutually committed and recognised relationships serve to reinforce exchange and prevent opportunistic exploitation (Cook and Wall 1980). Mathieu and Zajac (1990) found that reduced commitment is one of the major outcomes of reduced attachment to a social group, role conflict and role ambiguity which are the attributes of tension. Commitment is the driver behind any means to achieve a negotiated settlement (Ring and Van de Ven 1994). A committed negotiator can rationally effectuate negotiated outcomes



- (1) withdrawal (independent variable x) affects tension (mediator y);
- (2) withdrawal (independent variable x) affects commitment (dependent variable z);
- (3) tension (mediator y) affects commitment (dependent variable z) in controlling withdrawal (independent variable x); and
- (4)the effect of withdrawal (independent variable x) on commitment (dependent variable z) in the second condition is smaller than that of the third one.

H₁: Tension mediates the withdrawal-commitment relationship.

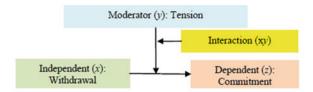
Fig. 14.1 The conceptual diagram of mediating effect

to match the precedent-based settlement which emphasises its consistency and certainty (MacFarlane et al. 2003)

For a mediation relationship, a complete mediation model has the form $x \to y \to z$, where x is the antecedent (i.e. withdrawal); y is the mediator (i.e. tension); and z is the consequence (i.e. commitment) (James and Brett 1984). Tension is a mediator in the withdrawal-commitment relationship, if the following conditions are met (Fig. 14.1).

14.3 Tension as a Moderator

Tension as a moderator in the withdrawal-commitment relationship partitions withdrawal into subgroups that establish its domains of maximal effectiveness in regard to commitment (Baron and Kenny 1986). Review of negotiation literatures offers mixed predictions on the moderating effect of tension on the withdrawal-commitment relationship. A high-tensioned negotiator is unlikely to reach an agreement particularly when he experiences high level of withdrawal. High withdrawal reflects a sense of anger and frustration leading to a negative expectation on the negotiation outcome. Even if a negotiated settlement is ultimately reached, the desire for revenge, non-compliance or creation of future dispute lingers (Saraydar 1971). As such, a high withdrawing negotiator is less committed in a tensed negotiation. It is proposed that tension positively affects withdrawal especially when it is high. In other words, the withdrawal-commitment relationship will be



- (1) tension (moderator y) affects commitment (dependent variable z);
- (2) withdrawal (independent variable x) affects commitment (dependent variable z); and
- (3) the moderating effect of withdrawal and tension (interaction xy) affects commitment (dependent variable z).

H₂: Tension moderates the withdrawal-commitment relationship. The relationship is stronger for high-tensioned negotiators than for low-tensioned negotiators.

Fig. 14.2 The conceptual diagram of moderating effect

stronger for high-tensioned rather than low-tensioned negotiators. It is expected that high-tensioned negotiators are having higher negative expectation from the negotiation than their low-tensioned counterparts. If one's level of withdrawal increases from low to high, it will have a stronger impact on the level of commitment for a high-tensioned negotiator than a low-tensioned one. Accordingly, the slope of regression line of the withdrawal-commitment relationship will be steeper for high-tensioned negotiators than the low-tensioned. Therefore, a significant interaction effect between withdrawal and tension on commitment is predicted. The relation between withdrawal and commitment is thus moderated by tension (Sheridan and Abelson 1983). The dependent variable z (i.e. commitment) is a probabilistic function of x (i.e. withdrawal), y (i.e. tension) and their interaction xy (i.e. withdrawal*tension). Tension is a moderator in the withdrawal-commitment relationship if the following conditions are met (Fig. 14.2).

14.4 Variables and Measures

14.4.1 Tension

The measurement scale of tension has been developed in the light of role theory. The attributes of tension used in the study are role overload, role conflict and role ambiguity as shown in Table 14.1 (Caplan and Jones 1975; Kahn et al. 1964; Singh 1998; Weatherly and Tansik 1992). Role overload is defined as a lack of

Table 14.1 List of observable variables of tension (Beehr et al. 2000; Caplan and Jones 1975; Kahn et al. 1964, pp. 21–23; Singh 1998; Weatherly and Tansik 1992)

Code	List of observable variables
	I had insufficient manpower and materials to handle the negotiation task
	I was not given enough time to do what was expected of me in negotiating the dispute
TN_RO_03	I had too many negotiation tasks to handle
TN_RO_04	I could not work efficiently because I was interfered by the complexity of the negotiation task
TN_RO_05	I often experienced a marked increase of work load during the dispute negotiation process
TN_RC_01	I had to make decisions which could not satisfy my counterpart
TN_RC_02	I had to closely work with my counterpart who operated quite differently
TN_RC_03	I received incompatible requests from my counterpart
TN_RC_04	I had to make decisions from my counterpart's point of view
TN_RC_05	I needed to make decision on unnecessary thing in the negotiation
TN_RA_01	I felt uncertain about how much authority I had in negotiating the dispute
TN_RA_02	I had unclear goals and objectives for the negotiation task
TN_RA_03	I would not divide the negotiation task properly
TN_RA_04	I did not know exactly what was expected of me in the negotiation
TN_RA_05	I was unclear about the purposes of the negotiation

Note: Anchor and reverse scored

TN: Tension; RO: Role overload; RC: Role conflict; RA: Role ambiguity

adequate resources required to materialise the role expectations or demands (Brumels and Beach 2008; Singh et al. 1996). It occurs if a negotiator is demanded to accomplish a task with insufficient resources or limited capabilities. According to Jones et al. (1995), role overload in construction dispute negotiation can be quantitative and qualitative. Quantitative overload happens when a negotiator is asked to complete a negotiation task, however the resources given may be limited, or there are too many associated works. Qualitative overload describes a situation where a negotiator may not have adequate skill and/or ability to complete a negotiation task, even if more resources are made available. Role conflict occurs when a negotiator faces incompatible demands arising from concurrent occurrence of two or more events (Onyemah 2008). It is described as a feeling of being torn in multiple directions. A negotiator with role conflict is unable to find ways to reconcile the demand from the respective roles. He gets frustrated when his roles are conflicting and as a result he is unable to complete the task in a satisfactory manner (Brumels and Beach 2008). Role ambiguity is defined as a feeling that a negotiator finds oneself absence or lack of adequate information available to fulfill his role satisfactorily (Kahn et al. 1964; Singh et al. 1996). It occurs when expectations for a particular negotiation position are vague, unclear, or ill defined. These contradictory roles and responsibilities are often associated with poorly defined requirements, haphazard performance, and inconsistent evaluations (Hardy and Conway 1988). In such circumstances, a negotiator is often uncertain about the settlement options (Onvemah 2008).

Table 14.2 List of observable variables of withdrawal (Beck and Martin 1995; Blau 1985; Chow and Cheung 2008; Hanisch and Hulin 1991; Mobley et al. 1979)

List of observable variables
I was emotionally drained as a result of the negotiation
My energy was used up at the end of the negotiation
I felt fatigued when I got up in the morning and had to face the negotiation another
day
I was burned out as a result of the negotiation
I felt frustrated by the negotiation
I dealt very effectively with the negotiation ^a
I felt I had positively influenced my counterpart through the negotiation ^a
I could easily create a relaxed atmosphere with my counterpart ^a
I felt exhilarated after working closely with my counterpart ^a
I had accomplished many worthwhile things in the negotiation ^a
I felt I treat my counterpart as an impersonal 'object'
I had become more callous toward my counterpart since I participated in the negotiation
I worried that the negotiation had hardened me emotionally
I didn't really care what happened to my counterpart
I felt my counterpart had blamed me for some of his/her own problems

^a Anchor and reverse scored

WB: Withdrawal; EE: Emotional exhaustion; PA: Reduced personal accomplishment; DP: Depersonalisation

14.4.2 Withdrawal

In this study, withdrawal has been operationalised as emotional exhaustion, reduced personal accomplishment, and depersonalisation by aggregating responses to items related to "thinking of withdraw"; "desirability of withdraw" and "likelihood of withdraw" (Hanisch and Hulin 1991) (Table 14.2). Emotional exhaustion describes the adverse reactions of a negotiator to the tedium has in a negotiation (Maslach et al. 2001). It is suggested that as emotional resources are depleted or drained, a negotiator is no longer able to control his temper. Densten (2001) further characterised emotional exhaustion as a phenomenon of lack of energy. Reduced personal accomplishment refers to the tendency of a negotiator evaluating oneself negatively, particularly when compared with the counterpart. It leads to low level of motivation and self-esteem at the negotiation table (Densten 2001). Thus, a negotiator easily feels unhappy and dissatisfied with his performance in the negotiation (Maslach et al. 2001). This decline in one's feeling of competence reinforces pessimistic attitude and runs against commitment. Depersonalisation refers to the unfeeling and callous responses by a negotiator toward his counterpart. Densten (2001) elaborated depersonalisation as detachment, emotional callousness and development of negative and cynical attitude toward the counterpart. Such negative reaction is partly linked to the experience of emotion exhaustion. Emotion exhaustion and depersonalisation are thus somewhat related (Maslach et al. 2001).

Table 14.3 List of observable variables of commitment (Fiss 1983; MacFarlane et al. 2003; Meyer and Allen 1991; Mowday et al. 1984; Ring and Van de Ven 1994; Simonson and Staw 1992)

1992)	
Code	List of observable variables
CM_AC_01	I was pleased to spend my leisure time to deal with the negotiation
CM_AC_02	The project team is like a family and I felt like part of it
CM_AC_03	I did feel I was emotionally attached to my counterpart
CM_AC_04	This project had a great deal of personal meaning to me
CM_AC_05	I felt a strong sense of belonging to my project team
CM_CC_01	Too much of my career life would be disrupted if I decided to call for breakdown from the negotiation
CM_CC_02	It was too costly for me to call for breakdown from the negotiation
CM_CC_03	Staying with the project team was a matter of necessity as much as desire
CM_CC_04	I felt that I would have few other contracting partners left to choose if I called for breakdown from the negotiation
CM_CC_05	There were only limited choices of alternative package of resolution, if I called for breakdown from the negotiation
CM_NC_01	I thought that project team these days often changes their counterparts ^a
CM_NC_02	I believed that members of a project team must always show their contribution to the resolution of disputes
CM_NC_03	Calling breakdown from the negotiation was an unethical symbol to me
CM_NC_04	I did not feel it would be right to leave my original position even if I got another offer for a better role elsewhere
CM_NC_05	I believed in the value of remaining loyal to my project team in resolving the dispute

^a Anchor and reverse scored

CM: Commitment; AC: Affective commitment; CC: Continual commitment; NC: Normative commitment

14.4.3 Commitment

Behavioural approach has focused on identifying conditions under which commitment are manifested (O'Reilly and Chatman 1986). Despite the different forms of conceptualisation, attributes of commitment is expressed in three general themes; (i) affective attachment to the project team, (ii) perceived costs associated with leaving the negotiation table, and (iii) obligation to remain with the project team where each negotiator has a commitment profile reflecting the degree of desire, need, and obligation to a negotiated settlement (Meyer and Allen 1991). In this study, commitment is categorised as affective, continual and normative (Table 14.3). Affective commitment refers to a negotiator's emotional attachment to, identification with, and involvement in a project team. A negotiator with strong affective commitment contributes to a negotiation because he wants to do so. Also, affective commitment reflects a desire to maintain a membership in a project team, that develops largely as a result of project experiences and more importantly the feeling of comfort and personal competence created (Meyer and Allen 1991). Continual commitment refers to an awareness of the costs associated with leaving

the project team. A negotiator who is primarily linked to a project team due to continual commitment stays on with the negotiation because he needs to do so (Meyer and Allen 1991). Continual commitment reflects the degree to which a negotiator experiences a sense of being locked in a place because of the high costs of leaving and termination (Beck and Martin 1995; Jaros et al. 1993). Common antecedents of continual commitment are increasing side bets or investments, and initiating alternative proposals (Meyer and Allen 1991). Normative commitment reflects a feeling of obligation to continue. A negotiator with a high level of normative commitment believes that he ought to remain with the negotiation (Meyer and Allen 1991). Wiener (1982) defined normative commitment as the "totality of internalised normative pressures to act in a way which meets organisational goals and interests", and suggests that a negotiator exhibits these behaviours solely because he 'believe(s) it is the "right" and moral thing to do'. Normative commitment differs from continual commitment because it does not necessarily vary with individual calculation of inducement or sunk cost (Jaros et al. 1993; Mathieu and Zajac 1990; Mowday et al. 1984). Wiener (1982) further proposed that it is the culture of a project team that frames normative commitment.

14.5 Methodology

14.5.1 Participants

The prospective participants of the study were construction practitioners who (1) were practicing and (2) had construction dispute negotiation experiences. The sample was developed based on the company directories and the member directories of construction professional institutes such as the Hong Kong Institute of Architects (HKIA) and the Hong Kong Institute of Surveyors (HKIS) (Far East Trade 2003). Participants were contacted either by phone, fax or email. After the prospective participants accept the invitation, the researchers then send them the questionnaire by fax or email.

14.5.2 Measures

In this study, the self-reported control variables include participants' gender (dummy coding: female = 0, male = 1), project organisation (dummy coding: client = 0, contractor = 1), working experiences (in years) and project sum (in HK\$), etc. Other demographic data like professions and type of membership in the professional institutions were collected but were not further analysed in the study. Respondents were asked to provide their degree of agreement of the statements listed in Tables 14.1, 14.2 and 14.3. 7-point Likert-scale was used for the

Regression equations	Model
$y = \beta_0 + \beta_a a + \beta_b b + \beta_x x + \varepsilon$	(1)
$z = \beta_0 + \beta_a a + \beta_b b + \beta_y y + \varepsilon$	(2)
$z = \beta_0 + \beta_a a + \beta_b b + \beta_x x + \varepsilon$	(3)
$z = \beta_0 + \beta_a a + \beta_b b + \beta_x x + \beta_y y + \varepsilon$	(4)
$z = \beta_0 + \beta_a a + \beta_b b + \beta_x x + \beta_y y + \beta_{xy} xy + \varepsilon$	(5)

Table 14.4 Models of mediation-and-moderation regression analyses

 β_i : coefficient of i; ε : error term; a: demographics (i.e. gender); b: negotiation-related variables (i.e. project organisation, working experiences, project sum and duration); x: independent variable; y: mediator in Eqs. 1, 3 and 4 or moderator in Eqs. 2, 3 and 5; z: dependent variable; xy: interaction; a and b are control variables

measurements of tension, withdrawal and commitment where "1" indicates strongly disagree and "7" indicates strongly agree (Cooper and Schindler 2000). The scores of tension, withdrawal and commitment were calculated with anchored items reverse scored. All the data analyses were performed by SPSS version 17.0.

14.5.3 Reliability

Cronbach's alpha, average inter-item correlation and item total correlation of reliability measurement are employed in the study. They are used to assess the degree of internal consistency of items (Hair et al. 1998). Cronbach's alphas of all factors are greater than 0.7 (varies from the lowest: 0.7 of TN_RC to the highest: 0.9 of WB_EE) suggesting that the factors are internally consistent as well as the data set is reliable for further statistical analyses.

14.5.4 Mediation-and-Moderation Regression

Mediation-and-moderation regression analyses are used to determine the extent to which tension as a mediator and a moderator plays in the withdrawal-commitment relationship (James and Brett 1984; O'Connor et al. 2005). In this regard, 5 regression equations are developed (Table 14.4). Demographic data and project particulars were added as control variables in steps 1 and 2 respectively in each of the regression. To meet the four conditions of mediation effect, (1) the F values of models 1, 3 and 4 should be significant; (2) β_x and β_y of models 1, 3 and 4 should be significant; and (3) the values of β_x of model 3 should be much greater than that of model 4. To meet the three conditions of moderation effect, (1) the F values of models 2, 3 and 5 should be significant; and (2) β_x , β_y and β_{xy} of models 2, 3 and 5 should be significant.

14.6 Results and Findings

The data collection questionnaire was either emailed (157) or faxed (356) to the sample. Hundred thirty usable responses were obtained (25.3 % return rate). The sample has an average experience of 12.19 years (SD = 10.58 years). By profession, the respondents are made up of architects (9 %), surveyors (60 %), project managers (5 %), engineers (25 %) or lawyer (1 %). Seventy nine percentage of them worked for client (e.g. private developer, government bodies, consultant, etc.) and the remaining of them worked for contractor (e.g. main contractor, subcontractor, etc.). They were involved in building (54 %), civil (23 %), building services (11 %), or maintenance (12 %) projects. In each of the multiple regression models, demographic data (i.e. gender) and negotiation-related variables (e.g. project sum and working experiences) were first added in steps 1 and 2 respectively. Gender and negotiation-related variables were not all significantly related to commitment and were not further discussed. Table 14.5 gives the general statistics of the three dimensions.

14.6.1 Tension as a Mediator

To investigate tension as a mediator, the procedures mentioned earlier in the moderation-and-mediation regression analyses were employed (i.e. Models 1, 3 and 4 in Table 14.6). First, withdrawal affects tension (mediator) (F=3.87, p=0.001). Second, withdrawal affects commitment (F=2.46, p=0.028). Third, tension does affect commitment in the presence of withdrawal ($\beta_y=-0.22$, p=0.017; F=3.04, p=0.006). Finally, when the first three conditions are confirmed, then, the effect of the independent variable (withdrawal) on the dependent variable (commitment) in the third model ($\beta_x=-0.19$, p=0.005) is greater than in the fourth one ($\beta_x=-0.12$, p=0.087). The results met the requirements. Tension is thus a mediator in the withdrawal-commitment relationship and Hypothesis 1 is supported.

14.6.2 Tension as a Moderator

Withdrawal, tension and their interaction were entered in steps 3, 4 and 5 respectively in Model 5. The third and fourth variables produced two main effects on commitment (Table 14.6). Supporting the notion that withdrawal is related to commitment, withdrawal explained 5.8 % of variance in commitment (ΔF (1, 123) = 7.99, p = 0.005) in Step 3 of Model 5. Withdrawal produces a negative effect on commitment. Step 4 of Model 5 revealed that tension also explained 4.1 % of variance in commitment (ΔF (1, 122) = 5.91, p = 0.017). Tension negatively

	CM TN			$0.11 -0.23^*$													0.85 -0.16	0.83
	WB C	0.03	0.00	-0.25^{**}	-0.05	0.10	0.87^{**}	0.85^{**}	0.65**	-0.19^{*}	-0.46^{**}	-0.05	0.39^{**}	0.41	0.55^{**}			
	RA	-0.07	0.05	-0.41^{**}	-0.09	0.13	0.49^{**}	0.56^{**}	0.24^{**}	-0.03	-0.27^{**}	0.25^{**}	.44.0	0.24^{**}	0.85			
	RC	90.0	0.04	-0.05	-0.02	-0.07	0.42^{**}	0.37^{**}	0.16	-0.13	-0.34^{**}	-0.19^{*}	0.50^{**}	0.70	-9.35^{**}			
	RO	0.08	0.10	0.00	0.04	-0.02	0.42**	0.44	90.0	0.04	-0.31**	0.11	0.77	4.00**	-7.15**			
	NC	-0.25^{**}	0.04	-0.07	0.09	0.04	-0.02	0.07	-0.17	0.41	0.24	0.77						
	CC			0.21^{*}														
	AC	-0.06	-0.01	0.09	-0.01	-0.01	-0.06	-0.12	-0.30^{**}	0.85	2.95^{*}	-6.51^{**}						
military	DP	0.05	-0.13	-0.14	0.00	0.02	0.29**	0.31^{**}	0.78									
	PA	-0.01	0.13	-0.29^{**}	-0.07	0.07	0.71	0.79	-4.19									
	EE	0.02	0.01	-0.18^{*}	-0.05	0.14	0.92	-6.33**	-7.77									
	SD	0.48	0.41	10.58	196	1.16	1.32	1.05	1.07	1.06	1.13	0.94	0.91	0.77	1.12	0.91	0.78	0.77
- di-	ή	0.64	0.21	12.19	281	2.72	3.97	3.45	2.99	4.37	4.69	3.74	4.13	4.42	3.44	3.47	4.26	4.00
-	$^{ ext{II}}$ μ SE	Gender	Comp.	Exp.	Sum	Dur.	EE	PA	DP	AC	CC	NC	RO	RC	RA	WB	CM	Z
	П	а	b_1		b_3											У	×	1

** Bold diagonal: Crobach's alpha; Upper-diagonal: Correlation (df 130); Lower-diagonal: Pairwise sample t-statistic; significant (2-tailed) at the level of

gender: female = 0, male = 1; Comp: Client = 0, Contractor = 1; Exp.: total construction dispute negotiation experience in year; Sum: project sum in million; Dur: project duration in year; TN: Tension; WB: Withdrawal; CM: Commitment; I: Variable notation corresponding to the regression analysis; II: Variable code; RO: Role overload; RC: Role conflict; RA: Role ambiguity; EE: Emotional exhaustion; PA: Reduced personal accomplishment; DP: Depersonalisation; AC: Affective commitment; CC: Continual commitment; NC: Normative commitment

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Table

Step	β_i	Model									
		1		2		3		4		5	
_	a	0.07	(0.14)	-0.28^{**}	(0.14)	-0.29	(0.14)	-0.27	(0.14)	-0.26	(0.14)
2	b1	-0.03	(0.16)	-0.03	(0.16)	0.01		0.01	(0.16)	-0.04	(0.16)
	<i>b</i> 2	0.00	(0.01)	0.01	(0.01)	0.01	(0.08)	0.01	(0.01)	0.00	(0.01)
	<i>b</i> 3	0.00	(0.00)	0.00	(0.00)	0.00		0.00	(0.00)	0.00	(0.00)
	<i>b</i> 4	-0.09	(0.07)	-0.02	(0.07)	0.03		0.01	(0.07)	0.05	(0.07)
3	×	0.30^{***}	(0.07)			-0.19^{***}		-0.12^{*}	(0.07)	-1.04^{***}	(0.30)
4	χ			-0.29^{**}	(0.09)			-0.22^{**}	(0.09)	-0.87^{***}	(0.23)
5	λx									0.20^{***}	(0.07)
F		3.87***		3.00^{***}		2.46^{**}		3.04***		4.05***	,
\mathbb{R}^2		0.16		0.13		0.11		0.15		0.21	
Adj.		0.12		0.09		90.0		0.10		0.16	
ΔR^2		R^2						***		0.06	
dfs		9	123	9	123	9	123	7	122	· &	121

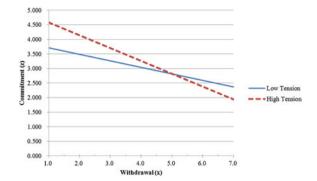
β_i: Variable, a and b control variables where a gender, b: project organisation; working experiences; project sum and duration; x: independent variablewithdrawal; y: mediator and moderator-tension; xy: interaction

p < 0.1,

p < 0.05p < 0.01

 β_i unstandardised regression coefficients with the standard errors in parentheses

Fig. 14.3 The interaction effect of withdrawal (x) and tension (y) on commitment (z)



influences commitment, in the presence of withdrawal. The product of the two (withdrawal*tension) (xy) was significant $(\Delta R^2 = 0.063, \Delta F (1, 121) = 9.63, p = 0.002)$. The significant interaction effect on commitment was further investigated by examining the differences between high-tensioned and low-tensioned negotiators. The demarcation between the high- and low-tension negotiators is the median of the tension scores. Separate regression lines for the high- and low-tensioned groups are shown in Fig. 14.3. Low-tensioned negotiators had a negative but non-significant relationship in the withdrawal-commitment relationship $(\beta_L = -0.224, t = 0.207, p = 0.233)$. However, for the high-tensioned group, the regression line had a significant and negative relationship $(\beta_H = -0.441, t = 4.035, p = 0.000)$.

The regression lines for high- (Eq. 14.1) and low-tensioned participants (Eq. 14.2) can be expressed as follow:

$$Z_{\rm H} = 5.022 - 0.441 x_{\rm H},$$
 (14.1)

$$Z_{\rm L} = 3.933 - 0.224 x_{\rm L},$$
 (14.2)

x and z are identified by solving the above two equations. The high- and lowtensioned regression lines intersect at the point with withdrawal score of 5.018 and commitment score of 2.810 (7-point Likert scale: 1—Low; 7— High). Hightensioned participants had higher commitment than low-tensioned participants. When the negotiators had the withdrawal score higher than 5.018, high-tensioned negotiators had lower commitment than the low-tensioned. Moreover, the average commitment for high-tensioned negotiators ($\mu_H = 4.500$, SD = 0.486) was higher than that of low-tensioned negotiators ($\mu_L = 4.023$, SD = 0.569) (F (1, 128) = 22.518, p = 0.000), while most high-tensioned negotiators have higher withdrawing behaviour ($\mu_H = 4.157$, SD = 0.450; $\mu_L = 2.801$, SD = 0.650; F(1, 1)128) = 4.315, p = 0.040). There were five negotiators having withdrawal score higher than 5.018, three of them were high-tensioned negotiators and two of them were low-tensioned. Most of the high-tensioned negotiators have higher commitment than their low-tensioned counterparts except those with withdrawal score higher than 5.018. Thus, tension moderates the withdrawal-commitment relationship and Hypothesis 2 is supported.

14.7 Discussion

This present study proposes that tension is both a mediator and a moderator in the withdrawal-commitment relationship. As a mediator, tension exemplifies the effect of withdrawal on commitment. Both withdrawal and tension negatively influence commitment. As a moderator, high- and low-tensioned negotiators display different patterns of commitment. High-tensioned negotiators, generally, have higher commitment than low-tensioned negotiators. However, this pattern reverses when the state of withdrawal increases. In this study, when the withdrawal score reached 5.018 in a scale of 1 (low withdrawal) to 7 (high withdrawal), high-tensioned negotiators have lower commitment than their low-tensioned counterparts. In the regression analyses, the regression lines of low- and high- tension in the withdrawal-commitment relationship intersect at the withdrawal score of 5.018 and commitment score 2.810 (Both figures are with reference to a 7-point Likert scale of 1-Low to 7-High). This reference point suggests possible directions on managerial plan to gauge commitment in practice. When withdrawal is low, asserting pressure may be a good way to boost commitment. Once withdrawal reaches its threshold value, providing a relaxing negotiating environment may well promote commitment instead. There is a high price for negotiation failure and reverting a withdrawn negotiation is extremely resource laden (Cheung and Chow 2011). Once stalemate surfaces, resurgent measures such as recognising achievement attained provide the necessary conducive and intrinsic support to ease a tense environment. Low withdrawing negotiators develop and internalise tension to keep the project team motivated toward a negotiated settlement, while high withdrawing negotiators are motivated by satisfaction in accomplishing the task and are particularly interested in equity.

The withdrawal-commitment relationship is significantly negative for hightensioned negotiators but not for low-tensioned negotiators. Thus, for the same increase in withdrawal, high-tensioned negotiators will have significantly greater decrease in commitment than low-tensioned negotiators. When tension is high, higher withdrawal does lead to lower commitment. In such situation, the call for psychological relax would devalue the utilities of the possible settlement options. These findings support the notion that certain level of tension mobilises human resources and keeps the negotiators stay focused on the disputing issues (Deutsch et al. 2006). Nevertheless, tension is a two-edged sword. On one hand, it drives focus on getting the dispute settled. On the other hand, increasing level of tension induces abscondment—a strong form of withdrawal (Cullen et al. 2003; Mathieu and Zajac 1990). Withdrawal is influenced by tension and has temporal and crosssituational stability. As tension increases, a withdrawing negotiator may quickly adjust his commitment, and also his "frame of reference" in evaluating his negotiation tasks, mostly pessimistic. In this regard, withdrawal hampers the interest to continue with the negotiation. Results of this study provide insight for construction practitioners, especially the measures of tension, withdrawal and commitment that have not been operationalised in previous studies.

The construction industry has advocated the use of alternative dispute resolution techniques like mediation and adjudication instead of adversarial processes such as arbitration and litigation. Moreover, negotiation remains the most cost effective means to resolve dispute. In fact, successful negotiation yields greater overall economic payoff. In search for success factors for achieving negotiated settlements, negotiation research has been furthered to examine the process and outcomes related issues such as withdrawal and tension. The desire to continue a negotiation is strongly related to the behavioural factors of the negotiators. High withdrawing negotiators are more prone to choose adversarial means in resolving dispute and less committed to a negotiated settlement. Certain level of tension can empower potential responses and enhance evaluations. Tensioned negotiators are keen to search for rapid recognition that drives commitment. However, too much of the tension arising from the negotiation will intensify the withdrawal tendency. The urge for a result would lead to compromises on the expected outcomes. Even if a negotiated settlement is ultimately reached, the desire for revenge, non-compliance or creation of future dispute lingers. Excessive tension in this regard would cause failure of the negotiation in extreme circumstances.

The interpretation of the research findings is restricted. First, it is mindful that self-reported measures are not longitudinal, thus the cause-and-effect relationship could be further enhanced and supplemented by qualitative analyses with greater case information. Second, the findings are subjected to the method variance such as geographical region and sample distribution. The data set is from Hong Kong and an uneven distribution of sample professions in the survey. The findings should be read in the light of this characteristic. Further research is thus needed to explore the antecedents and different situational variables of tension and withdrawal and to examine longitudinal data to see whether these findings can be replicated in different samples, occupations, and cultures.

14.8 Chapter Summary

Negotiation is the most cost-effective way to resolve dispute. Having a negotiated settlement reflects well on the negotiators. The psychological state of a negotiator underpins his behaviours and these behaviours govern the success or otherwise of a negotiation. One of these psychological states is commitment that has triggered researches to study the factors that contribute to its development, maintenance and enhancement. The attitudinal factors, i.e. withdrawal and tension, are pivotal to commitment. In this study, it is proposed that the effects of withdrawal and tension on commitment are more complex than revealed by previous studies. It is proposed that tension both mediates and moderates the withdrawal-commitment relationship. A questionnaire study was used to collect empirical data to examine the proposition. The results support the hypothesis that tension is both a meditator and a moderator in the withdrawal-commitment relationship. Tensioned negotiators are generally more committed to a negotiated settlement than their low-tensioned

counterparts. However, if the tension is excessive, the loss of commitment is much quicker than the low-tensioned counterparts. It reminds managers that even tension can mobilise human resources to the betterment of a negotiated settlement, but too much of the tension would raise the state of withdrawal of the negotiators and in terms lowers commitment. In this regard, management may adjust the tension level by varying the settlement targets as well as changing the memberships of the negotiation.

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