

## THE EFFECTS OF POWER IMBALANCE AND FRAMING IN DYADIC NEGOTIATIONS<sup>1</sup>

### İKİ TARAFLI MÜZAKERELERDE GÜÇ DENGESİZLİĞİ VE ÇERÇEVELEMENİN ETKİLERİ

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#### ABSTRACT

Although negotiation, in its various forms, occurs frequently and is used by everyone, negotiators often fail to reach Pareto optimal solutions when there is integrative potential to expand the resources and yield higher joint outcomes. Power and framing of conflicts are two widely acknowledged factors that have been shown to affect distribution of resources and integrativeness of agreements. However, the effects of frame conditions on individual and mutual outcomes in power-asymmetric negotiations are largely unexplored. In an experimental study, we investigated the effect of gain-loss frames on negotiated agreements when power is unequally distributed. The results suggest that while different gain-loss frame adoptions of high and low power parties did not affect the integrativeness of the agreements, the distribution of resources was found to be significantly related to the frame conditions of the parties.

**Keywords:** Negotiation, power, framing, experiment design

#### ÖZET

Müzakereler farklı biçimlerde sıklıkla gerçekleşmelerine ve hemen herkes tarafından kullanılmalarına rağmen, müzakereciler kaynakları genişletmenin ve ortak çıktıları artırmanın mümkün olduğu durumları değerlendirememekte ve genellikle optimal çözümlere ulaşmakta başarısız olmaktadır. Güç ve çatışmaların çerçevelenmesi faktörlerinin kaynakların dağıtımını ve anlaşmaların bütünlüktürlerini (integrativeness) etkilediği literatürde genişçe kabul görmüştür. Ancak, çerçevelenme olgusunun, gücün taraflar arasında asimetrik olarak dağıldığı durumlarda bireysel ve ortak çıktıları nasıl etkileyeceği genel anlamda üzerinde durulmamış bir konudur. Güçün taraflar arasında eşit dağıtılmadığı durumlarda, müzakereyi kazançlar veya kayıplar açısından çerçevelenmenin müzakere ile ulaşılan anlaşmalara etkisi deneysel bir çalışma ile araştırılmıştır. Sonuçlar güçlü ve gücsüz tarafların müzakereyi kazançlar veya kayıplar açısından çerçevelenmelerinin anlaşmaların bütünlüktürlerini etkilemediğini, kaynakların taraflar arasında paylaşımını ise önemli ölçüde etkilediğini göstermektedir.

**Anahtar Sözcükler:** Müzakere, güç, çerçevelenme, deney tasarımı

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## INTRODUCTION

Disputes can occur between husband and wife, between colleagues, between employees and employers, between firms and even between nations. Negotiating is one of the most frequently used processes for settling these disputes (Bazerman & Neale, 1992; Raiffa, 1982). Negotiation can be defined as a joint decision making process where two or more parties are trying to influence the other about the allocation of resources or division of gains for the purpose of achieving their own or mutual interests (Bazerman & Neale, 1992; Fisher & Ury, 1981; Raiffa, 1982). The increasing workforce diversity, new organizational structures and tools, rapid technological advances and growing reliance on teams to make decisions have placed unsurpassed pressure on managers and employees. As only managers have the authority over resources and the required information for important issues, negotiations have become an integral part of manager's job (Mintzberg, 1975).

Although negotiation, in its various forms, occurs frequently and is used by everyone, generally the parties fail to reach agreements that maximize joint outcomes (Bazerman & Neale, 1992; Fisher & Ury, 1981; Raiffa, 1982; Rosenschein & Zlotkin, 1994). People often think that they have done the best they could in a negotiation but generally they are mistaken. Many agreements are in fact suboptimal. Formally stated, negotiators often fail to reach Pareto optimal solutions when there is integrative potential to expand the pie and yield higher joint outcomes (Bazerman & Neale, 1992; Fisher & Ury, 1981; Walton & McKersie, 1965).

Negotiation literature includes extensive research with different approaches that endeavour to identify the causes of suboptimal agreements and the providers of Pareto optimal solutions. The approaches are mainly, competitive distributive/integrative bargaining (see Walton & McKersie 1965), cognitive, rational, game theoretical approaches (see Bazerman & Neale 1992; Raiffa, 1982; Rosenschein & Zlotkin, 1994), integrative, issue based strategic "principled negotiation" (see Fisher & Ury, 1981) and lastly social-psychological, mutual gains, collaborative needs-based approach (such as Coleman & Lim, 2001; Watkins, 1999; Hunter & McKersie, 1992).

Essentially, most real-world negotiations are not purely distributive or purely integrative but they fall somewhere between these two situations (Walton and McKersie, 1965; Watkins, 1999; Çetin, 2002). Walton and McKersie (1965) termed these situations as "mixed motive", which present few pure conflict issues and few pure integrative ones. Therefore, as the bargainer's interests may not be in pure conflict, they may instead be in some correspondence or compatibility. The negotiators are likely to have different priorities on issues and have uncertain information about their negotiation opponent (Fatima, Wooldridge & Jennings, 2006). As

Rosenschein & Zlotkin (1994) denoted, the domain may also not necessitate the negotiators to compete in order to reach their goals but they are better-off if they cooperate and reach an agreement.

Even though the complexity of negotiations is evident, naive negotiators were found to assume that their interests are incompatible (O'connor & Adams, 1999; Weingart, Hyder & Prietula, 1996). Experienced negotiators were also found to outperform naive negotiators in identifying the relative importance of issues (Murnighan et al., 1999; Thompson, 1990).

The reality of the negotiators is frequently defined by their subjective judgments. The literature has shown how negotiators as decision makers may deviate from rationality by violating the requirements of consistency and coherence (Bazerman & Chugh 2006; Hammond, Keeney & Raiffa, 1998; Kahneman & Tversky, 1979; Neale & Bazerman, 1985; Tversky & Kahneman, 1981). Although there are many other decisional biases, this study will examine framing bias which has been shown to affect decisional outcomes and influence negotiation behavior (Bottom, 1998; De Dreu, Carnevale, Emans, Vliert, 1994; De Dreu, McCusker, 1997; Kahneman & Tversky, 1979; Neale & Bazerman, 1985; Schweitzer & DeChurch, 2001; Tversky & Kahneman, 1981). The previously examined effects of framing will be linked to the effects of power imbalance in negotiations. Literature has also shown that power is a widely acknowledged factor that affects the negotiator behavior, performance and negotiation outcomes (e.g., Anderson & Berdahl, 2002; Bacharach & Lawler, 1976; Faley & Tadeschi, 1971; Kim, 1997; Mannix, 1993; Wolfe & McGinn, 2005).

Rather than viewing organizations as fixed or rigid systems constrained by strict rules, goals or hierarchical control, we draw on the conceptualization of organizations as negotiated orders. According to this perspective, organizations are created, sustained and transformed by negotiated interactions between organizational members. In this ongoing process organization members who possess conflicting interests, values and action prescriptions - as well as different power capacities- negotiate over the allocation, distribution and utilization of scarce resources. In the continual construction of the relatively fluid structure of power and control, organizational members strive to affect the outcomes of negotiations through which organizational order is created (Reed, 1992; 83-92).

Therefore, this study which focuses on the effects of power imbalance and perception of negotiation outcomes may help to acknowledge how organizations are reviewed, re-evaluated, revised and renewed over time. In this regard, the main aim of the study is to understand the dynamics of negotiations, mainly the effect of two basic factors, power and framing. The study also aims to provide empirical evidence to fill the gap in the literature on how frame conditions will affect outcomes of negotiations when power

is unequally distributed. Prior to any further progress, we will briefly examine first power dynamics in negotiation and then framing bias. Furthermore, the hypothesis about the effects of framing on negotiation behaviors and outcomes in power-asymmetric negotiations will be stated and tested. The study will end with discussion and limitations.

## **POWER IN NEGOTIATIONS**

Power imbalance is almost inevitable in most relationships including interpersonal, inter-organizational and international relations. Think of a student negotiating with his professor, a small manufacturing company with Microsoft or China with Nepal. In these relationships, power surely strengthens the hand of the high power negotiator to get a higher proportion of the rewards in an agreement (e.g., Fisher & Ury, 1981; Kim, 1997; Mannix, 1993; McAlister, Bazerman & Fader, 1986). The power imbalance empirically manifests when high-power and low-power parties initialize a supply-demand relationship in which these demands are contradictory to the supplier's desires (Emerson, 1962). The conception of power has played a key role in negotiation and bargaining literature and the studies about power in negotiation are mainly based on power-dependence theory (e.g., Bacharach & Lawler, 1976; Kim, Pinkley & Fragale, 2005; Kim & Fragale, 2005; Lawler, 1992; Wolfe & McGinn; 2005). Power dependence theory states that "power resides implicitly in the other's dependency" and "the power of A over B ( $P_{ab}$ ) is equal to and based upon the dependence of B upon A ( $D_{ba}$ )" and represents this relationship with a pair of equations:  $P_{ab}=D_{ba}$  &  $P_{ba}=D_{ab}$  (Emerson, 1962: 32-33). The level of dependence is determined by two variables: (1) the value attributed to the outcomes or resources received from the relationship with other party and (2) the scarcity of alternatives from whom these resources can be acquired. Emerson (1962) proposed four power change tactics which he called "balancing operations". He argued that when power is unbalanced in favor of A, the balance can be restored either by decreasing dependence (by improving own alternative or decreasing value assigned to counterpart's contribution) of B upon A or increasing dependence (by decreasing the value of counterpart's alternative or increasing other party's evaluation of own contribution) of A upon B. Furthermore, in power-dependence theory, power is not assumed to be a nonzero-sum, and relative power is distinguished from total power in that total power refers to the sum of each party's absolute power, while relative power refers to the power difference or ratio of each party's absolute power (Lawler, 1992: 22).

Earlier works about power in negotiations are compatible with Emerson's framework. For example, Walton and McKersie (1965) and Raiffa (1982) have suggested that determining a reference point such as reservation

price or resistance point, which refers to the minimum level a negotiator is willing to settle for, will guide the behaviors of parties at the bargaining table, influence the relative power and subsequently the outcomes. In response to power, Fisher and Ury (1981) emphasized the term “BATNA” (best alternative to a negotiated agreement) as an effective method. They suggested that negotiators will be better off if they know their own and the other party’s BATNA and should develop their BATNA in order to change the power balance in favor of them.

In another commonly referenced theory of power, French and Raven (1959) proposed five bases of power - reward power, coercive power, expert power, legitimate power and referent power- that determines the power of A over B (French & Raven, 1959: 155-156). The 5 bases of power determine the sources of power but not how they are used. As total power and relative power had been defined, power tactics were also examined as two distinct types. These two types of tactics, power-use tactics and power-change tactics, concern the use of existing power capabilities and the efforts to alter the power relationship respectively (Lawler, 1992:24). Lawler made two further propositions concerning power relations and power tactics. The first is that as far as the parties have equal power, the higher the level of total power, the less the hostility and the greater the conciliation. The second proposition is that when a power imbalance exists, the parties will not be willing to accept the power difference and its effect on negotiation outcomes and will employ more hostile tactics and fewer conciliatory tactics.

The power conceptions of Lawler (1992) and more recently Kim et. al. (2005) are consistent with and based upon the earlier theories discussed above. Lawler conceptualized power as three distinct moments in the power process. He defined these three distinct moments as power capability, power use and finally actual power. Nevertheless, Kim et al. (2005), in their dynamic model of power, decoupled power into four components -potential power, perceived power, power tactics (power-change and power-use) and realized power. As can be seen, the conceptualization of the components of power is quite similar but potential power was defined differently by Kim et al. (2005). By revisiting power and dependence, they defined potential power of A by combining the utility A could obtain from his or her BATNA with the surplus utility A could obtain from his or her contribution (Kim et al., 2005: 806).

The literature provides evidence of the effects of power asymmetries on the negotiation process and integrativeness of negotiated agreements. Compared to unequal power, equal power dyads were found to achieve higher joint outcomes and under unequal power conditions the lower power player was found to be responsible for driving a solution of higher joint gain (Mannix & Neale, 1993). Additionally, McAlister et al. (1986) replicated the

findings that high power parties achieve higher profitability in negotiated agreements than lower power parties and further they found that equal power leads to more integrative agreements. Unequal distribution of power leads parties to focus more on protecting their own interests, thus, focus more on the distributive rather than integrative side of the negotiation. While low-power negotiators are not willing to accept agreements that reflect a power difference, high-power negotiators strive to reach agreements resulting in a larger payoff for the high power negotiator (Faley & Tedeschi, 1971; Mannix & Neale, 1993; Mannix, 1993).

The literature has also investigated the determinants of unequal power and their effect on the negotiation process and outcomes. For example, Bacharach and Lawler (1976) found that alternative outcome sources and values attributed to outcomes at issue were the main determinants of perceived power so that as alternative outcome sources of a negotiator increase or the value the negotiator attributes to the outcome decreases, perceived power will decrease or vice versa. Similarly, it was found that the party who makes a greater contribution to the relationship is likely to achieve greater individual outcomes (Kim, 1997; Mannix, 1993). As people search and interpret their social environment for approval of their self-perceptions (e.g., Kim, Diekmann & Tenbrunsel, 2003; Bazerman & Neale, 1992), it was argued by Kim et al. (2005: 807) that the values negotiators attribute to BATNAs and contributions may also depend on their own considerations of quantity, probability and weight of the resources. In addition, Kim and Fragale (2005) showed that relative benefits of BATNAs and contributions for negotiator performance can depend on the size of the bargaining zones.

## FRAMING IN NEGOTIATIONS

Even the same acts, contingencies, options or outcomes can be conceptualized quite differently by the decision makers. Because of imperfections in human perception and decisions, decision makers systematically violate the requirements of rational choice and deviate from rationality (Kahneman & Tversky, 1979; Tversky & Kahneman, 1981). Furthermore, some studies have exemplified how our bounded awareness prevents us from seeing, seeking, using or sharing information and the way our brains work can sabotage our decisions (Bazerman & Chugh, 2006; Hammond et al., 1998; Pfeffer & Sutton, 2006). In the light of this prior knowledge, we may conclude that in most negotiations, decision makers' judgments deviate from rationality and negotiators as decision makers define their behaviors according to these inaccurate judgments. Prior work also supported this idea and demonstrated that the negotiator's frame, which can be defined as the negotiator's conceptualization of conflict and its

components, influences preferences (Kahneman & Tversky, 1979; Tversky & Kahneman, 1981), negotiation process and outcomes (De Dreu et al., 1994; De Dreu, McCusker, 1997; Neale & Bazerman, 1985; Pinkley & Northcraft, 1994).

The literature has investigated the impact of negotiator frames in two different conceptualizations (Schweister & DeChurch, 2001). While the first body of literature terms the frames as conflict frames and defines them as multidimensional constructs (e.g., Pinkley, 1990; Pinkley & Northcraft, 1994), the second approach terms the frames as reference frames and defines them in terms of reference point and magnitude of change from this reference point (e.g., Bazerman & Neale 1992; Bottom, 1998, Kahneman & Tversky, 1979; Neale & Bazerman, 1985; Tversky & Kahneman, 1981).

Conflict framing (Pinkley, 1990) is basically defined in terms of disputants' cognitive interpretations of conflict. Conflict frames are used to define and acknowledge conflict situations where the information is perceived, organized and interpreted in terms of these cognitive structures. Pinkley's multidimensional conflict construct (1990) aroused considerable attention (see Schweister & DeChurch, 2001). Three dimensions were identified by analyzing the disputants' descriptions of conflict situations (Pinkley, 1990). The first dimension, labeled as relationship/task, refers to the difference in the extent to which negotiators are concerned about maintaining the relationship or monetary outcomes. The second dimension, emotional/intellectual, emphasizes the variance in degree of attention paid to effects versus facts and actions. Pinkley's third and last dimension, cooperate/win, describes the extent to which negotiators blame all parties for the conflict and seek a compromise solution or blame the others and try to maximize his or her own outcomes even at the expense of others. Pinkley's conflict dimensions were used by Pinkley and Northcraft (1994) in a dyadic negotiation simulation. They found that negotiators' conflict frames influence each other and negotiators reach more integrative outcomes by trade-offs and they get better portions of these resources when they have task rather than relationship, or cooperation rather than winning frames. Furthermore, the emotional/intellectual dimension was found to be related only to negotiator satisfaction with the outcome.

On the other hand, reference framing was first introduced by Tversky and Kahneman (1981). In their prospect theory (Kahneman & Tversky, 1979; Tversky & Kahneman, 1981) it is proposed that people normally perceive outcomes as gains and losses rather than final states of outcomes and the valuation of any outcome, defined as gains or losses, depends on its location relative to the reference point which is assigned a value of zero. Another important aspect in prospect theory is loss aversion. Tversky and Kahneman (1981) proposed that people are more risk averse for positive

but risk-seeking for negative outcomes. The value function which delineates a relationship between objective outcomes and subjective values is S-shaped, concave in gains and convex in losses and steeper in losses than it is in gains, reflecting that losses are valued more than equivalent gains (Tversky & Kahneman, 1981).

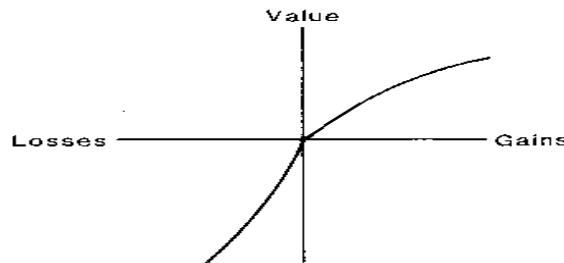


Figure 1: Hypothetical value function for framing. (Tversky & Kahneman, 1981: 454, Kahneman & Tversky 1979: 279)

The example presented by Tversky & Kahneman (1981:453) illustrates the effect of framing:

"The U.S. is preparing for the outbreak of an unusual Asian disease, which is expected to kill 600 people. Two alternative programs are being considered. Scientific estimate of the consequences are as follows. Which one would you favor?

\*If program A is adopted, 200 people will be saved. (72 percent)

\*If program B is adopted, there is 1/3 probability that 600 people will be saved, and 2/3 probability that no people will be saved. (28 percent)

A second group of 155 respondents was given the cover story with the following formulation of the alternative programs:

\*If program A is adopted, 400 people will die. (22 percent)

\*If program B is adopted, there is 1/3 probability that nobody will die, and 2/3 probability that 600 people will die. (78 percent)"

In the first problem, out of 152 respondents 72 percent chose program A-the certain outcome- while in the second problem 78 percent chose the risky outcome of program B. The difference in the choices clearly illustrates that choices involving gains are risk averse while choices involving losses are often risk seeking.

Previous frame research indicated diverse findings. Some studies have shown that loss frame produces less cooperation, more demands, fewer concessions, and more impasse (Bazerman & Neale, 1992; De Dreu et al., 1994; Neale & Bazerman, 1985). Contrary to these findings, Bottom (1998) found that loss frame negotiators were more cooperative, made greater concessions and created more integrative agreements when payoff from settling is risky, but bargain more contentiously when payoff from settling is deterministic.

Some studies indeed reported no relationship between frame and cooperation. For example, De Dreu, Emans and Vliert (1992) found no support for the prediction that own gain frame would produce more cooperation than own loss frame. But they found that other's loss frame induced more cooperation than gain frame only in case of an own gain frame. Additionally, De Dreu and McCusker (1997) by conducting 3 experiments, found that frame interacts with social motive to predict cooperation. While individualists cooperate less under a loss than a gain frame, cooperators cooperate more under a loss rather than a gain frame (De Dreu & McCusker, 1997).

Although two distinct areas of literature conceptualize negotiator frames differently, Schweister and DeChurch (2001) established a link between these two conceptualizations and showed that reference framing influences conflict frame adoption. They found that loss framed negotiators adopt winning frames and task orientation (Schweister & De Church, 2001).

### **FRAMING WHEN PARTIES HAVE UNEQUAL POWER**

Within the framework of previously mentioned studies, it can be stated that the unequal-power pairs are less likely to reach integrative agreements and are at a disadvantage for establishing integrative issues. The current study focuses on the determinants of more integrative agreements and allocation of resources when pairs have unequal power. Some studies search for the answer in the aspiration levels of the negotiators and the efforts of the low power party (e.g., Kim, 1997; Mannix, 1993; Wolfe & McGinn, 2005). They propose that while powerful parties try to reach agreements that divide the resources or rewards proportionately to their power, low power parties tend to resist agreements that reflect power imbalance. Furthermore, if low power parties have high aspirations they are likely to risk the agreement for a better solution of high individual and joint gain because higher individual outcome can only be achieved by higher mutual outcomes. Wolfe and McGinn (2005) suggested that aspirations and perceptions of relative power are conceptually and empirically distinct constructs. Whereas relative power gets its sources from the individual and

other's BATNA and determines the integrativeness of the agreements, aspirations reflect only one's own alternatives and are related to individual payoffs. Negotiators were also found to ignore the counterparts' resources when setting their goals and aspiration levels.

In contrast, Anderson and Thompson (2004) emphasized the positive emotion of powerful parties. They showed that a powerful negotiator can positively affect the bargaining process and outcomes in such a way as to foster mutual trust, which leads to increased communication, better integrative thinking and more integrative outcomes (Anderson & Thompson, 2004). They suggested that positive emotion factor is an alternative explanation for the integrativeness and is not contradictory to the proposition about the low-power party's efforts. Complementary to these findings, Anderson and Berdahl (2002) found that high power parties experience more positive emotions, express their true attitudes and underestimate how their partners may feel threatened by them. Moreover, Schweitzer and DeChurch (2001) showed that loss framed negotiators are likely to adopt task orientation and task oriented negotiators were found to obtain significantly higher individual and joint outcomes (Pinkley and Northcraft, 1994).

Consequently, we predict that the frames of the high power and low power negotiators will affect the process and outcomes of the negotiations. We expect the loss framed parties to be win-oriented and task-oriented which will lead them to focus on material outcomes, to maximize own profit and to care less about others' outcomes. Prior studies have shown that loss framed negotiators are less likely to be influenced by the others' communicated frame but other's communicated gain frame induces lower demands and greater concessions in cases of an own gain frame (De Dreu et al., 1994). A recent study showed that, idiocentrists, who possess similar core values with proselves (competitors and individualists), contribute less to mutual outcomes when perceiving cooperation from others, and tend to behave in a way to maximize personal outcomes and show behaviors that are less dependent on others behaviors (Chen, Wasti & Triandis, 2007). Further, prosocially motivated groups (composed of members who seek good outcomes for themselves as well as for the other members) were found to achieve higher joint outcomes because of higher levels of trust and problem solving behavior (Beersma & De Dreu, 1999). Relying on the earlier studies, we expect low power parties with loss frames to resist the agreements reflecting the power difference and high power parties with loss frames to be less affected by the counterparts' frames. Thus, we predict that integrativeness of the agreements will reach higher levels when high power parties have gain frames and low power parties have loss frames.

As powerful negotiators are less likely to perceive threats and anticipate interference from others and are more likely to define the tone of the negotiation (Anderson & Berdahl, 2002; Anderson & Thompson, 2004), we expect that high-power parties with loss frames will be more likely to insist on allocating the resources in favor of themselves especially when low power parties are gain framed. But when low power parties communicate about their gain frame, high power parties are expected to demand less and concede more especially in case of an own gain frame. Another prediction of the study therefore is that when high power parties are loss framed, low power parties with gain frames will be less likely to achieve higher individual outcomes compared to loss framed parties because it needs more effort and is more risky to obtain a higher proportion of rewards when power is unequally distributed. As loss framed parties were found to be more likely to take higher risks and to show more effort, it will be more appropriate to expect better individual outcomes from low power parties with loss frames. This prediction gets support from the loss aversion aspect of prospect theory (Kahneman & Tversky, 1979; Tversky & Kahneman, 1981) which basically proposes that losses loom larger than gains. Consistent with our prediction, literature also provides evidence which shows that the concessions made by the loss framed opponent loom larger than the concessions made by the gain framed opponent due to loss aversion (e.g., De Dreu et al., 1994, De Dreu & McKusker, 1997). Another finding is that when the counterpart has a loss frame, he/she is perceived as more cooperative, but more importantly, negotiators generally demand more and concede less when their opponent has a loss rather than a gain frame (De Dreu et al., 1992; 1994). This finding constructs a base for another prediction of our study, that is, low power parties with gain frames will achieve higher individual outcomes when high power parties have gain frames instead of loss frames. In short, the following hypotheses are derived from prior findings in the literature and current theoretical considerations that have been mentioned.

Hypothesis 1a. High power parties with loss frames will obtain higher individual outcomes when low power parties have gain frames compared to when they have loss frames.

Hypothesis 1b. High power parties with loss frames will obtain higher individual outcomes than high power parties with gain frames when low power parties are gain framed.

Hypothesis 2a. The mutual outcomes will be lowest when high power negotiators have loss frames and low-power negotiators have gain frames.

Hypothesis 2b. The mutual outcomes will be highest when high-power negotiators have gain frames and low power parties have loss frames.

Hypothesis 3a. Low power parties with loss frames will reach better individual outcomes than low power parties with gain frames when high-power parties have loss frames.

Hypothesis 3b. Low power parties with gain frames will get higher individual outcomes than low power parties with loss frames when high power parties are gain framed.

Hypothesis 4. The difference between individual outcomes will be highest in favor of high power parties when they have loss frames and low power parties have gain frames.

## METHOD

### Participants

92 business administration undergraduates at the University of Uludağ participated in the experiment for extra course credit. The study was announced as research on joint decision making and the participants were recruited during their normal courses of study. The effects of gender were out of the scope of this study so to avoid any complication from that, participants were assigned to same-sex dyads.

### Design

Participants were randomly assigned to dyads and to a role of either a recruiter or a candidate (adapted from Christopher & Smith, 1991 and Wolfe & McGinn, 2005). The experimental design manipulated power (high & low) as a within subject variable, recruiters' frame [gain (RG) vs. loss (RL)] and candidates' frame [gain (CG) vs. loss (CL)] as between-subjects variable (Dawson, 1997; Sani & Todman; 2006). Thus, every dyad was composed of two participants, one in the role of a recruiter with high power and the other in the role of a candidate with low power. While the dyads were identical in terms of power, as the negotiators' frames were manipulated between subjects' variables, the frame conditions of the candidates and recruiters varied according to the experimental condition to which they were assigned. This led to two cells in which parties were in the same frame condition (RG / CG and RL/CL) and two cells in which parties were in a different frame condition (RG/CL and RL/CG). In other words, while in two of four possible dyad compositions, the recruiter and the candidate were both in a loss or gain frame condition, in the other two dyad compositions, the participants were in different frame conditions (gain vs. loss) (see Table 1).

**Table 1:**

<b>Experimental Design</b>				<b>experimental conditions</b>
R -----	GP -----	T -----	O	RL / CG
		P h/l	F loss/gain	
R -----	GP -----	T -----	O	
		P h/l	F gain/loss	
R -----	GP -----	T -----	O	RL / CL
		P h/l	F loss/loss	
R -----	GP -----	T -----	O	RG / CG
		P h/l	F gain/gain	

R Stands for random assignment to a group

GP Represents the selection of the group or experimental unit

T Designates a treatment or intervention F Represents the frame manipulation (gain vs. loss)

O Refers to an observation

P Designates the power manipulation (high vs. low)

RL/RG Represents the recruiters (high power) with loss and gain frames respectively.

CL/CG Represents the candidates (low power) with loss and gain frames respectively.

### **Procedure**

In order to satisfy the appropriate conditions to conduct the experiments, data was collected over several sessions and the number of students in each session varied on the basis of availability and convenience (6 to 34 students participated in each session). Upon arrival at the classroom, before giving any information, we ensured that all the dyads consisted of same-sex participants and strangers.<sup>2</sup> If not, the participants were randomly assigned to a different partner. Before negotiating, the participants were given general information and briefly explained that they would be involved in a job interview between a recruiter and a candidate. They were then given instructions regarding their roles, the issues, their payoff schedules and an agreement form only within the recruiters' materials. They had 25 minutes to read and understand the instructions and to complete a questionnaire including manipulation check questions and questions regarding their understanding of the negotiation. After the questionnaires had been completed and all questions answered, participants were given 35 minutes to negotiate.

To settle, participants had to reach an agreement on each of five issues (four integrative trade-offs, one purely distributive): salary, bonus, vacation

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<sup>2</sup> The quality of negotiated settlements was shown to be affected from intrateam relationships. Teams of strangers were found to reach greater joint outcomes compared to teams of friends (see Peterson & Thompson, 1997 for details).

time, working hours per week and insurance coverage. There were 5 possible alternatives on each issue and each alternative was assigned a different monetary value (gain vs. loss) for the recruiter and the candidate. While the recruiter valued vacation time and insurance coverage more than the candidate, the candidate valued bonus and working hours more than the recruiter. This allowed negotiators to make trade-offs (logrolling) between issues by obtaining more on the higher value assigned issues in exchange for concession on the less valued ones. In the gain frame condition every alternative was represented with a positive number (gains) that would be achieved if parties agreed on that particular alternative. In the loss frame, alternatives were represented with negative numbers that expressed the losses a party would suffer if parties agreed on that particular alternative (see Table 2). Salary was the most valuable issue but the preferences of the parties were in pure conflict. The four integrative issues were worth 1000YTL jointly if one of the parties could persuade the other party to agree on the alternatives that would be best for him or her (gain 1000YTL or lose 0YTL) but worst for the counterpart (gain 0YTL or lose 1000YTL) or both parties compromised on each issue.

Nevertheless, had the negotiators integrated their interests by taking advantage of all possible trade-offs, the four integrative issues would be worth 1520YTL. A fully integrative agreement that maximized joint outcome would result in 2320YTL (800YTL salary + 1520YTL four integrative issues) but only 1800YTL if all trade-off opportunities were wasted.<sup>3</sup> The parties were not permitted to agree on an alternative outside the boundaries of the bargaining zone determined formerly and to exchange payoff schedules. Thus, they had to find solutions to maximize individual and joint outcomes by negotiating and exchanging information about their preferences. When the negotiators settled, they filled out the “contract” form included in the recruiters’ materials by recording the terms of the agreement, writing their names and signing the form. In the case of an impasse at anytime during negotiation or at the end of 35 minutes if the

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<sup>3</sup> The characteristics of “integrative” and “distributive” negotiations have been widely discussed in the negotiation literature. Although the integrative negotiations were not suggested as being more superior to distributive negotiations, integrative type has gained a general acceptance that it allows for better compromises, value creation and win-win solutions. Further, it was argued that there are four key characteristics of integrative negotiations which are value creation, focusing on interests, information exchange and learning and problem restructuring that separate them from distributive negotiations. While reaching an efficient compromise is accepted as being the objective of distributive negotiations, negotiations become integrative when parties expand a set of offers and utility space by inventing new offers, adding new issues and modifying constraints (see Kersten (2001) for further discussions).

negotiators had still not reached an agreement, an additional page including alternative candidates and job offers was provided by the experimenter and negotiators were allowed to evaluate and choose one of the candidates or firms according to their role (explained in detail below).

**Table 2: Payoff schedules for high/low power parties in different frame conditions (gain vs. loss)**

PAYOFF SCHEDULES					
issue	alternatives	Recruiter Payoffs		Candidate Payoffs	
		loss frame(RL)	gain frame (RG)	loss frame (CL)	gain frame (CG)
<b>BONUS</b>	10%	-160 YTL	<b>0 YTL</b>	-0 YTL	<b>400 YTL</b>
	8%	-120 YTL	<b>40 YTL</b>	-100 YTL	<b>300 YTL</b>
	6%	-80 YTL	<b>80 YTL</b>	-200 YTL	<b>200 YTL</b>
	4%	-40 YTL	<b>120 YTL</b>	-300 YTL	<b>100 YTL</b>
	2%	-0 YTL	<b>160 YTL</b>	-400 YTL	<b>0 YTL</b>
<b>VACATION TIME</b>	25 days	-400 YTL	<b>0 YTL</b>	-0 YTL	<b>160 YTL</b>
	20 days	-300 YTL	<b>100 YTL</b>	-40 YTL	<b>120 YTL</b>
	15 days	-200 YTL	<b>200 YTL</b>	-80 YTL	<b>80 YTL</b>
	10 days	-100 YTL	<b>300 YTL</b>	-120 YTL	<b>40 YTL</b>
	5 days	-0 YTL	<b>400 YTL</b>	-160 YTL	<b>0 YTL</b>
<b>WORKING HOURS (PER WEEK)</b>	40 hours	-80 YTL	<b>0 YTL</b>	-0 YTL	<b>360 YTL</b>
	42 hours	-60 YTL	<b>20 YTL</b>	-90 YTL	<b>270 YTL</b>
	44 hours	-40 YTL	<b>40 YTL</b>	-180 YTL	<b>180 YTL</b>
	46 hours	-20 YTL	<b>60 YTL</b>	-270 YTL	<b>90 YTL</b>
	48 hours	-0 YTL	<b>80 YTL</b>	-360 YTL	<b>0 YTL</b>
<b>INSURANCE COVERAGE</b>	Plan a	-360 YTL	<b>0 YTL</b>	-0 YTL	<b>80 YTL</b>
	Plan b	-270 YTL	<b>90 YTL</b>	-20 YTL	<b>60 YTL</b>
	Plan c	-180 YTL	<b>180 YTL</b>	-40 YTL	<b>40 YTL</b>
	Plan d	-90 YTL	<b>270 YTL</b>	-60 YTL	<b>20 YTL</b>
	Plan e	-0 YTL	<b>360 YTL</b>	-80 YTL	<b>0 YTL</b>
<b>SALARY</b>	1600 YTL	-800 YTL	<b>0 YTL</b>	-0 YTL	<b>800 YTL</b>
	1400 YTL	-600 YTL	<b>200 YTL</b>	-200 YTL	<b>600 YTL</b>
	1200 YTL	-400 YTL	<b>400 YTL</b>	-400 YTL	<b>400 YTL</b>
	1000 YTL	-200 YTL	<b>600 YTL</b>	-600 YTL	<b>200 YTL</b>
	800 YTL	-0 YTL	<b>800 YTL</b>	-800 YTL	<b>0 YTL</b>

### Experimental manipulations

**Manipulation of power.** The actual power was manipulated by the number of alternatives (Mannix & Neale, 1993; McAlister, Bazerman & Fader, 1986) and perceived relative power was manipulated by giving information about own/counterparts' alternatives and values attributed to outcomes of the relationship (Bacharach & Lawler, 1976; Wolfe & McGinn, 2005). Participants were not given exact values of their own and counterparts' alternatives. In the high alternative conditions, the recruiters were told that they had 12 other candidates who were willing to accept

reasonable alternatives on each issue, available jobs for new graduates were very scarce and they seemed to be the top choice for their counterparts. Therefore, the negotiators in the role of a recruiter were less dependent upon the candidates, as the number of alternatives were higher and the information included in the instructions were manipulating the perceptions about alternatives and their current situation. On the other hand, in the low power condition, the candidates were told that their alternatives were very scarce (only 2 more job offers), the alternatives that firms were willing to agree would clearly result in worse outcomes than those that could be achieved by reaching an agreement with the current firm and that they thought of their counterpart as their best choice. Thus, participants in the role of candidates were more dependent on recruiters as their alternatives were very scarce and instructions were manipulating the perceptions about alternatives and their current situation.

Furthermore, it was shown previously that recruiters are perceived to possess higher legitimate and reward power because they have higher authority relative to the candidate and candidates are generally more dependent upon the recruiters in real life negotiations (Anderson & Thompson; 2004). This manipulation rendered it possible to measure the effects of power on the negotiation outcomes.

**Manipulation of frame.** The frame condition was manipulated as had been done in previous research (e.g., Neale & Bazerman, 1985; De Dreu et al, 1992, De Dreu et al, 1994; De Dreu & McCusker, 1997). On each of five issues the best alternatives for the recruiters and candidates were identified and stated. All participants were told that they had 0 YTL at the beginning of the negotiation. In the gain frame condition participants were told that they could earn nothing or up to 1800 YTL (approximately \$1500) according to the concessions they secure from the counterpart. The participants in the gain frame were informed that:

Any concession by the candidate/recruiter will result in serious gains for your company/you. Please do not forget that your primary objective is to maximize the monetary gains for the company/yourself. What is being expected from you is to make the counterpart concede as much as possible so that you can increase your monetary gains to a top level, which is 1800 YTL.

In the loss frame condition however, participants were told that they could lose nothing or up to 1800 YTL according to their concessions beyond the alternatives granted. The participants in the loss frame condition were informed that:

Any concession from the alternatives specified will result in serious losses for your company/you. Please do not forget that your primary objective is to minimize the monetary losses for the company/yourself. What is being expected from you is to make concessions as low as possible so that you can decrease your monetary losses to the lowest level, which is 0 YTL.

In this way, while the participants in the gain frame condition were manipulated to frame the outcomes as gains and to compare the alternatives in terms of monetary gains acquired, the participants in the loss frame condition were manipulated to frame the outcomes as losses and to compare the alternatives in terms of monetary losses suffered. This enabled the authors to measure the effects of gain-loss frames on the outcomes of negotiations.

## **MEASURES**

The hypotheses concerned the anticipation of two dependent variables. The individual outcomes were based on the terms of agreement recorded on the contract form. The level of integrativeness was measured by totalling the individual payoffs. As previously mentioned, the payoff schedules were identical in the loss and gain frame conditions but the monetary values that were assigned to the alternatives on each issue were represented either by gains (positive numbers) or losses (negative numbers). For example, if the recruiter in the loss frame condition suffered -100 YTL losses by reaching agreement on the 10-day vacation alternative, it was transformed to +300 YTL gain. Therefore a total of -450 YTL loss was calculated and transformed to 1350 YTL gain (1800 YTL max gain - 450 YTL loss) when analyzing the dependent variables. *Perceived relative power* and *frame manipulation* were measured in the pre-negotiation questionnaire.

## **RESULTS**

The participants answered all the questions in the pre-negotiation questionnaires correctly or they were guided about the correct answers. Among 46 dyads, 43 reached agreement. Thus, the reported analyses were based on 86 participants / 43 dyads (sample sizes N were 23 in gain frame conditions and 20 in loss frame conditions). The following sections report only significant effects whether predicted or not. Unpredicted results are reported only when they were expected to be significant.

### **Manipulation Checks**

To check the adequacy of *power manipulation*, participants were asked to allocate 100 points, the full power, between the parties with the question: “Considering the conditions in the negotiation, what is your bargaining power comparing to the candidate/recruiter?” (adapted from Wolfe & McGinn, 2005). When negotiators evaluated their bargaining power as 100 % , it meant that they had “all the power”, if they see their bargaining power as 50 % , this meant parties possessed “equal power “ and 0% for themselves meant they had “no power” but that the counterpart had all the power. Results revealed that manipulation was successful, the sense of power in high power condition is higher ( $M = 81.26$ ) than it is in low power condition ( $M = 42.93$ );  $F (3, 88) = 42.169$ ,  $p < 0.001$ .

To check if *manipulation of frame* was successful, participants were asked to rate on a 7- point scale whether their decisions in the negotiation were determining their losses or gains (1= totally losses, 7 totally gains) (De Dreu et al., 1992; Schweitzer & DeChurch, 2001). The results provide evidence that the loss frame produced a higher sensitivity to losing money ( $M = 3.27$ ) than the gain frame ( $M = 5.67$ );  $F (3, 88) = 16.650$ ,  $p < 0.01$ .

### **Individual and Mutual Outcomes**

Out of the 43 dyads who reached agreement, only 2 dyads were able to reach the full integrativeness that equals joint outcome of 2320 YTL (the two dyads were in RG/CG and RG/CL conditions).

Analysis of variance (ANOVA) was conducted to examine the integrativeness of the agreements in each experimental condition. It was predicted that dyads would reach more integrative agreements when the high-power party had a gain frame and low-power party had a loss frame and less integrative outcomes when high power parties had loss frames and low power parties had gain frames. The results showed that the effect of frame conditions on integrativeness did not remain significant. Thus, H2a and H2b were not supported,  $F (3, 39) < 1$ .

**Table 3: Average joint outcomes and *standard deviations* [ ] as a function of power and frame conditions**

		<b>Low power Candidate</b>	
		<i>gain frame</i>	<i>loss frame</i>
<b>High Power Recruiter</b>	<i>Gain frame</i>	1903.07 [213,76]	1969 [202,72]
	<i>Loss frame</i>	1901 [143,32]	1926 [215,57]

An additional ANOVA was conducted to test Hypotheses 1a and 1b. Results of ANOVA and further post hoc Dunnet test provided evidence that the high power parties with loss frames were able to achieve a higher proportion of the rewards when the low power parties were gain framed ( $M= 1275$  YTL) compared to when they were loss framed ( $M= 1002$  YTL). The results are presented in Table 5. High power parties with loss frames also obtained higher individual outcomes ( $M= 1275$ ) compared to high power parties with gain frames ( $M= 996.15$ ) when low power parties had gain frames. Thus, H1a and H1b were supported,  $F (2, 30) = 4.303$ ,  $p < 0.05$ .

**Table 4: Average individual outcomes as a function of frame and power conditions**

		<b>Low power Candidate [ ]</b>	
		<i>gain frame [ ]</i>	<i>loss frame [ ]</i>
<b>High Power Recruiter</b>	<i>Gain frame</i>	[906,92]	[818]
	<i>Loss frame</i>	996,15	1132
		[626]	[924]
		1275	1002

Numbers in parenthesis [ ] represents individual outcomes for low power parties

The predictions in H3a and H3b were about the individual outcomes of the low power parties. The results of analyses of variance and post hoc tests were as predicted. Low power parties with loss frames obtained higher individual outcomes than gain frames when high power parties were in loss frame condition ( $M = 924$  vs.  $M = 626$ ) and low power parties with gain

frames obtained higher individual outcomes when high power parties were in gain frame condition ( $M = 906.92$  vs.  $M = 626$ ). Thus, H3a and H3b were supported,  $F(2, 30) = 5.248$ ,  $p < 0.05$ .<sup>4</sup>

**Table 5: Anova results regarding hypotheses 1a, 1b, 3a and 3b**

Experimental condition	average individual outcome	std deviation	N	F	sig.
RL/CG	1275 a	252,99	10		
RL/CL	1002 a	199,99	10	4,303	.023*
RG/CG	996,15 a	276,78	13		
CG/RL	626 b	264,12	10		
CL/RL	924 b	198,22	10	5,248	.011*
CG/RG	906,92 b	237,95	13		

a. Individual outcomes for high power parties

b. Individual outcomes for low power parties

\*  $p < 0.05$

Hypothesis 4 predicted that the difference between individual outcomes would be highest when high power parties had loss frames and low power parties had gain frames. In the RL/CG condition, of the 10 low power parties (candidates), none was able to obtain better individual payoffs compared to high power parties (recruiters). This was the only experimental condition where all high power parties were able to get a higher proportion of total rewards. ANOVA was conducted to examine the difference in the individual payoffs between high power and low power parties. Although the results were significant,  $F(3, 39) = 2.963$ ,  $p < 0.05$ , the post hoc Dunnet test showed that the difference between individual outcomes was not significant between RL/CG and RG/CL conditions, but was significantly higher in RL/CG condition compared to RL/CL and RG/CG conditions,  $F(2, 30) = 5.759$ ,  $p < 0.01$ . These findings provide partial support for H4.

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<sup>4</sup> As the number of sample sizes are slightly different, variances are similar according to levene homogeneity of variances tests and our hypotheses 1a, 1b, 3a and 3b were specific, that is, one of the groups will differ from the other two groups, we performed post hoc Dunnet tests to examine these hypotheses (Field, 2000). As predicted, Hypotheses 1a, 1b, 3a and 3b were all supported.

**Table 6: Anova results regarding hypothesis 4**

Experimental condition	average difference between individual outcomes	std deviation	N	F	sig.
RL/CG	659	492,17	10		
RL/CL	88	347,75	10		
RG/CG	79,23	479,09	13		
RG/CL	313	685,26	10		
RL/CG	659	492,17	10		
RL/CL	88	347,75	10	5,759	.008**
RG/CG	79,23	479,09	13		

\* p < 0.05

\*\* p < 0.01

## DISCUSSION, LIMITATIONS AND FUTURE DIRECTIONS

Negotiation literature includes extensive research with different approaches that strive to identify the factors that affect negotiation process and outcomes. Previous empirical research has provided several findings about the effects of two widely acknowledged factors, power and framing of conflicts, on the process and outcomes of negotiation. However, experimental evidence on how frame conditions will affect individual and mutual outcomes in power-asymmetric negotiations is rare. The purpose of this study was to make a contribution to negotiation literature by providing empirical evidence that can help to fill this gap. The results of the study indicate that power interacts with frame conditions to determine the distribution of resources in bilateral negotiations.

Although the results showed that power interacts with frame conditions to determine the individual outcomes of the negotiators, predictions regarding the integrativeness of the agreements were not supported (H2a, H2b). Here, we would like to provide some possible reasons why our expectations about the mutual outcomes were not met. Our first discussion relies on the findings that unequal power decreases the integrativeness of agreements (e.g., Kim, 1997; Mannix, 1993; Wolfe & McGinn, 2005). The reason for the parties to focus on protecting their power positions rather than searching for integrative potential could be related to a high difference in perceived relative power of the parties (M high power = 81.26 vs. M low power = 42.93). Thus, the strong effect of power could have prevented the parties from seeking integrative potential (of the 43 dyads only 3 were able to reach fully integrative agreement). The second explanation is related to assumptions of naive negotiators that their interests are in pure conflict (O'Connor & Adams, 1999: 142; Thompson, 1990: 87; Weingart, Hyder & Prietula, 1996: 1205). As the participants in this study had no prior experience of negotiations, even if they had wanted

to raise mutual outcomes, they would not have been able to achieve their goals because of their lack of related knowledge. Lastly, individualistic instructions in frame manipulation could have directed the parties to maximize their own rather than mutual outcomes (De Dreu & McCusker, 1997: 1099).

An important finding in our experimental study is the interaction of power with frame conditions to determine the level of individual outcomes. As aspirations are related to individual outcomes (Wolfe and McGinn 2005; 15) and frame conditions affect reference points of the parties, we interpret that the frame conditions are more likely to affect individual rather than mutual outcomes.

Finally, the results have implications for the frame adoption of negotiators. We have found that low power parties reached higher individual outcomes when they were in the same frame condition compared to when in different frame conditions (H3a, H3b). It was shown by Olekalns & Smith (2005) that perceived similarity is more important than an individual's goals when it comes to cooperation. Findings are also consistent with the study of De Dreu and his colleagues (1994) who found that loss framed negotiators are less likely to be influenced by the others' communicated frame, but the others' communicated gain frame induces lower demands and greater concessions in case of an own gain frame. As parties generally failed to reach integrative agreements, the method of cooperation in this study seem to be letting the low power parties to receive better individual outcomes instead of reaching higher mutual outcomes. A final finding is that high power parties when they have loss frames seem to get what they want from the negotiation unless low power parties also have loss frames (H1a, H1b, H3a and H4).

Before future directions are stated, we would like to mention the limitations to this study. The first limitation arises from the dilemmas thrown up by the nature of research processes. While we aim to increase for example, the internal validity of our research, the external validity may decrease at the same time (Cook & Campbell, 1976; McGrath, 1982). Although experimental studies are powerful in demonstrating a causal effect between independent and dependent variables, the ability to generalize findings to other settings and populations has to be carefully considered. Another limitation of our study is the absence of triangulation. As all research methods are vulnerable in some ways, examining the effect of power and gain-loss frames with alternative methods could have surely improved the validity of the study. The third limitation is the lack of technical equipment to monitor the negotiation process which can help to understand thoroughly the effect of power and negotiator frames while the parties reach agreements (Peppet, 2002). Lastly, it was found that Pareto

improvements are not always preferred by negotiators (Korhonen et. al., 1998; Teich et. al., 2000). Therefore, more satisfying rewards, like monetary incentives, could be used to retain more realism and to motivate participants in experimental studies.

Although this study provides some clues for the effect of frame conditions in power-asymmetric negotiations, an important question awaiting further research is to what extent the difference in perceived relative power would prevent parties in different frame conditions from reaching integrative agreements. Another question is, whether the results would have been the same if the negotiators had been more experienced. Further studies can examine in more detail the factors that can help to overcome the effect of power differences in order to enhance the mutual outcomes. The effect of frame conditions in power-asymmetric negotiations can also be studied with different samples that are likely to have different cultural priorities and social value orientations. To gain a better understanding of negotiator behaviors and the negotiation process it may be helpful to monitor the parties during negotiations.

The issues discussed above present the need for examining power and the negotiators' frame more deeply. As power imbalance is almost inevitable in relationships, and decision-making and negotiating are becoming the most important jobs of executives, organizations should be aware of the decision traps, and increase their knowledge about strategies that can be used in power-asymmetric relationships and differentiate actual gains/losses from the perceived gains/losses as well as potential power from perceived power. Many issues about negotiations are waiting for further research and we hope that this study has at least thrown some light on negotiation and organizational dynamics.

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