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Introduction

In this document we discuss the foundations of negotiation concept, and provide an overview of some of the main exiting researches, theories, and models on negotiation and conflict resolution.

Negotiation research has gone under several phases therefore characterised by different paradigm of thoughts. One of the most used theoretical distinction in negotiating research define normative and descriptive research (Thompson et. al, 2010). The normative approach mainly derives from game theory, economics, and mathematics. It proposes optimal models of the negotiation problem and prescribes what people would do assuming they will act rationally as wise and all-knowing. The descriptive research emerging from social psychology and organizational behaviour recognizes that negotiators do not always behave in a game-theoretic, optimal fashion; instead way they actually behave usually departs significantly from normative, economic models.   Within negotiation research, the two most studied variables are negotiation processes and outcomes.

With respect with the descriptive approach in section 1 will be traced a short history of the psychological study of negotiation processes that include negotiators' behaviours, cognitions, emotions, and motivations. Under the analytic-normative approach, negotiation outcomes that include integrative and distributive features of the agreement will be described (Thompson et. al, 2010). The normative approach assumes that parties almost always defect in a prisoner's dilemma or social dilemma and that they should reach Pareto-optimal settlements in negotiation (solution that cannot be improved in value without hurting one or both of the parties' outcome values). However, as we will see actual defection of people in social dilemma are dramatically lower than 100% (Camerer 2003; Komorita & Parks 1995) and very few negotiators regularly recurs to Pareto optimal agreements (Thompson 2009; Thompson & Hastie 1990).

At the end of the two sections a tentative to define a theoretical framework for clarifying integrative interaction proposed by Johnson and Johnson (2003), will be described.

The third section is finally dedicated to a review regarding the model of conflicts and handling conflict in literature, and how that can be valuable to assess conflictive situations.

In this document a special space is dedicated to the descriptive model of negotiation because of the consideration of a variety of psychological variables affecting and defining the negotiation process. As will be discussed in details in the first section, the psychological study review of negotiation processes proposed will examine the decline of the early social psychology of negotiations in 1960s, outline the behavioural decision perspective of negotiation in 1980s-1990s, and explores more recent new direction of studies in the perspective of creating a new social psychology of negotiations.

As will be described in details, in the 1960s and 1970s although negotiation was an active research topic within social psychology, the dominant research perspective of the 1980s and 1990s was grounded in behavioural decision research, highlighting the systematic and predictable cognitive errors made by negotiators (Bazerman, et al. 2000). This perspective left the social factors largely unexamined. The beginning of twenty-first century has been characterised by a rebirth of interest on social factors in the psychological study on

negotiation including social relationships, egocentrism, motivated illusions, and emotions. However this phase was profoundly affected by the BDR perspective of 1980-1980s.

The behavioural approach derives from psychological and experimental traditions but also from centuries-old diplomatic agreements. These traditions share the perspective that negotiations – whether between nations, employers and unions, or neighbours are ultimately about the individuals involved. While the game theory relies on the assumption that players involved into a negotiation 'game' are characterless, featureless, uniformly rational, trying to maximizing pay-off, the behavioural approach highlights human inclinations, emotions and skills. As will be described following across 1970s – 2000s researchers from this approach have emphasized factors such as motivation, perception (or misperception), relationships, culture, norms, skills, attitudes, expectations and trust in negotiated outcomes.

1. Psychological research on negotiation

The history of psychological research in negotiation can be traced through three main phases, each characterised by different paradigms and perspectives.

During 1960-1970 initial studies on negotiation were a subfield of social psychology. These researches primary focused on the investigation of the influence of individual differences, including personality variables (e.g. self-esteem) and demographic characteristics (e.g. gender) that facilitate or impede negotiation processes. Among individual differences variable such as gender, race, age, self-esteem, locus of control, cognitive complexity were examined. Since negotiation processes involves interpersonal activities and exchange, it seems plausible that individual differences affect negotiation dynamics and outcomes. However the overall results of hundreds of studies indicated a general difficulty of predicting specifics negotiation behaviours and outcomes associated to specific individual differences (Bazerman et. al, 2001). The first phase corresponds with the birth of the social cognitive movement that took hold within psychology during1980s. This phase was mainly dominated by the behavioural decision making perspective on negotiation (BDR), strongly influenced by the cognitive revolution in psychology. Therefor the study on negotiation disappeared from social psychology, and expanded the body of research on decision making that could inform negotiation theories. Within this perspective the main focus is on the process of decision making activated by the actor in negotiation. Prior to this perspective negotiation research because its economic heritage was mainly oriented to the construction of a mathematical model of a rational negotiation (Luce & Raiffa, 1957; Rapoport, 1990; Raiffa, 1982). In the late 1990s the criticism toward the behavioural decision paradigm of ignoring social and contextual aspects within the negotiation process, has brought the need to reconsider the role of those aspects for a better understanding of negotiation. This corresponds to the second phase of research on negotiation focusing on the role of social psychological variables on decision making, including social relationships, egocentrism, motivation, and emotion. However, this new social psychology of negotiations accepts the fundamental dropback of rationality of the BDR perspective.

Thus, subsequent and more recent research has examined how negotiators subjectively understand the negotiation, how they psychologically define the game of negotiation, by taking contributions from social psychology, cognitive psychology, decision research, and clinical psychology, that brings the emergence of the new phase (third) of research on negotiation.

In addition to the psychological research framework phases mentioned earlier, it is worth of note the development of a latest recent trend in negotiation research that highlights the complex realities of this phenomena, and claims the need of reconceptualise negotiation as a complex dynamics system that would benefit from contributions of interdisciplinary perspectives. Insights from economics, psychology, political science, sociology, organizational behaviour, and not least computer science "would all contribute to what could be called a negotiation science for the 21st century" (Gelfand et al. 2011). Indeed, negotiation involves intra and interpersonal processes, and it is always socially situated thus involving different range of social and contextual factors. Moreover as negotiation takes place globally the cultural context becomes critical for understanding how inters and intra cultural dimensions influence negotiation processes.

1.1. Phase 1. Behavioural decision making perspective on negotiation (BDR)

As mentioned before the cognitive revolution in psychology brought the emergence of the field of BDR research (Kahneman and Trevsky, 1973, 1979; Dawes, 1998). More specifically, the emergence of the social cognitive paradigm brought to the investigation of how decision making could affect negotiation process, thus applied the research on decision making to the research on negotiation, with the purpose to lend theoretical rigour to the study in negotiation. Thus the research on negotiation became behavioural decision theory oriented. Decision theorists from different disciplines offered two main perspective of investigation research. The behavioural descriptive perspective, represented by psychologist, organisational behaviourist, and sociologist researchers, focus on how people make decisions, while analytic fields such as, economics and decision analysis, prescribe how people ought to make decisions. The work of Raiffa from the analytic prescriptive and Bazerman from the behavioural descriptive opened the ground for collaboration between descriptive and prescriptive perspectives. The analytics research perspective because of its economic heritage was preceded by a trend of study mainly oriented to the construction of a mathematical model of a rational negotiation (Luce & raiffa, 1957; Rapoport, 1960; Raiffa, 1982): the theoretical game perspective launched by Von Neumann and Morgerstern in 1944.

Economists and game theorists provided a largely prescriptive approach to negotiation by defining a model recommending "what" a wise, all-known and rational negotiator should do. In the same tradition Raiffa (1982) offered an alternative to the game-theoretic study of negotiation, and opened the way to the research tradition on negotiation refereed as asymmetrically descriptive prescriptive approach. Raiffa acknowledged the need of investigating how opponent negotiators make decisions, rather than assuming that they are perfectly rational, thus acknowledging that negotiators do not follow a purely rational

strategy. His approach calls for descriptive research in order anticipate the likely behaviours of the counterpart and more in general to better define and assess a prescribed model of rational behaviour. As results of Raiffa's theoretical integration, there has been introduced a new body of research that feeds prescriptive framework, that in turn is informed by it.

The behavioural descriptive perspective outlines how actual decision differs from what the normative-rational model prescribes, how negotiators think and the systematic ways in which they deviate from optimality and rationality when making decisions. More specifically, in response to Raiffa's prescriptive structure, some behavioural researchers, such as Bazerman and Neale (1982, 1983, 1992), Bazerman and Moore (1999), and Thompson (1998) opened a new body of research that tried to address some of the questions raised by Bazerman (2001). Specifically two parties negotiation empirical research, have identified a number of deviation from rationality that can be expected in negotiation. Negotiators that fall victim of a series of cognitive and social perception bias when making decisions, tend to:

a)   be inappropriately affected by anchors in negotiation (anchoring)

b)   and by positive and or negative frames in negotiation(framing),

c)   to rely on readily available information (availability);

d)   reactively devalue any proposals made by opponents (reactively devaluation)

e)   falsely assume that the negotiation tasks are fixed-pie and miss opportunities for mutually beneficial trade-off between parties involved (fixed-pie perception), that will be described more in details below;

f)   and to be overconfident about the likelihood of attaining outcomes that favour themselves (overconfidence): negotiators believe they know what the other party will accept on a given issue, therefore due to this overconfidence they omit to listen carefully and learn the other side's underlying interests and fail to adjust their belief.

g)   Escalate conflict even when a rational analysis would dictate a change in strategy (escalation)

As Bazerman (2001) claims, "the most useful model of negotiation, and the individual decision making that occurs within it, … includes both description and prescription".

1.1.1 Fraiming

The prospect theory formulated Tversky and Kahneman (1974) describe the heuristic bias traps that bring people to perceive the likelihood of an event inaccurately in decision making.   Framing effect is a cognitive bias for which people react differently and inconsistently to a particular choice depending on whether it is presented as a loss or as a gain. More specifically, the same choice if presented in negative (loss, costs) or positive terms (gain, beneficial, opportunities) will be perceived differently and thus influence the type of choice. Moreover when people make decision tend to use reference points and assign a potential value to losses or gain, rather than considering the final outcomes.

They empirically found that people make decision based on reference points - in terms of potential value of losses or gain- rather than a final outcome. They consider losses and gains as changes of their actual present states, instead of independent possibility that could happen in the future. People try to avoid losses more than they try to seek winnings, more specifically they tend to avoid risk when a positive frame is presented but seek risks when a negative frame is presented.

Similarly, research in negotiations, has shown how people with gain-positive frame tend to respond with more concessions then with loss frame; and that negotiators with gain frame tends to adopt less risky strategy and rich better outcomes that people with a loss frame (Batzerman et al. 1985; Lim and Carnevale, 1995). That negative framed negotiator can be contagious and influence the positive frame of the opponent that tends to acquire the same negative frame. This mechanism is asymmetrical thus negative framed negotiators do not tend to catch the positive opponents' frame instead (De Drue et al., 1995).

1.1.2 Anchoring

People tend to be affected by anchors in negotiations. Negotiators often try to introduce a reference point, or 'Anchor,' early in a negotiation. This reference point becomes the basis for counter offers and demands The anchoring effect describes the strategy of introducing a reference point (anchor) that become the base for making decisions even if it is clearly that it has a little or irrelevant information for the making the final judgment. For example researches has found that information provided prior or at the beginning at the negotiation influences offers, judgments, level of aspiration, their own and opponents' maximum and minimum agreement zones (Kristensen & Garling, 1997). People are often unable of resisting the influence of anchors when formulating their judgments even when they are worn about a particular anchor, or they are professional either novice negotiators (Northcraft and Neale, 1987). Moreover has been found that especially first offers have a strong anchoring effect and strongly influence final outcome (Ritov,1996; Kristensen & Garling, 1997). However when counterpart focus on information that are inconsistent whit the first offer, they are able to adjust their judgment (Galinsky and Mussleiwer, 2001).

1.1.3 Availability

When people try to estimate how likely or how frequent an event can occur they tend to use the most readily available and salient information can be brought easily and vividly to mind, although the event are events are highly infrequent or unlikely to occur. This heuristic tends to overestimates the likelihood that an event could occur. Similarly research in negotiation found that when likelihood of personal costs or loss is made salient, people are less likely to come to an agreement (Neale, 1984; Northcraft and Neale, 1986); moreover the more vivid negotiators' arguments are, the more persuasive they will be (Nisbette and Ross, 1980).

1.1.4 Fixed pie perception

It is a unique bias of negotiation setting. It brings to assume that the negotiation is a zero sum situation that pie is fixed, and miss opportunities for mutual agreements and exploring more creative solutions (Bazerman et al. 1983). This result in the negotiators' erroneous believe that both parties in negotiation share similar views and are interested to the same things, or that the counterparty's perspectives are opposite to their own and then to underestimate possible integrative agreements. Accordingly, several researches some of them conducted recently have demonstrate that fixe-pie biases tend to favour distributive agreement and decrease the likelihood of reaching joint gains and outcomes (Bazerman and Neale al 1985; Fukuno & Ohbuchi 1997, Thompson & DeHarpport 1994, Thompson & Hastie 1990; De Dreu et. al, 2000; Moran & Ritov, 2007).

1.1.5 Attributional bias

Similarly as per other contexts of our social life, research in negotiations has shown as also negotiators are driven to the tendency to attribute causes of others' behaviors to internal factors and neglect situational or contextual effects. This bias is known as attribution bias (Kelley, 1973; Kelley and Michela, 1980; Ross, 1977). Overall results indicate that attributional bias tends to produce competitive and among parties, hampering negotiation processes (Gelfand, et al., 2011).

1.1.6 Reactive devaluation

It is a cognitive bias proposed by Ross and Stillinger (1991) that refers to the fact that the same offer of a particular proposal or concession may be diminished or devaluated, especially if it comes from an adversary or antagonist (Ross, 1993). The authors linked the bias to the prospect theory (Kaneman and Tversky, 1974), arguing that negotiation with negative-loss-framed situations (represented by proposal coming from opponents) tends to offer less concessions to opponents. Moreover this bias seems also to result from the egocentrism self-serving bias that describe the tendency of people to overestimate themselves and their own proposal in terms of fairness and competence, and thus to consider others' offers as unfavourable (Bazerman et. al, 2001, Molm, et al. 2003). However recent researches have shown fewer tendencies to devaluate opponents' proposal when parties had prior sharing of mutual interests and needs (Curahn et. al, 2004).

1.2. Phase 2. The rebirth of social psychology and new research areas

The major criticism to the BDR perspective has concerned the fact of ignoring many factors that can influence negotiation processes. In the late 1990s this criticism brought the emerges of a new social psychology of negotiation focusing on the role of social psychological variables on decision making, including social relationships, egocentrism, motivation, and emotion, described more in details below.

However, this new social psychology of negotiations accepts the fundamental dropback of rationality of the BDR perspective. Indeed, these social factors were incorporated in the research of the behavioural decision perspective.

Thus for one hand this can be considered useful in offering advice to actual negotiators, by suggesting likely behaviours of the other party and possible ways in which the individuals' decisions can be biased. From the other end the accent on the dropback of rationality of the BDR perspective, has triggered the interest to investigate how negotiators subjectively understand the negotiation taking into account contributions from different research perspectives such as social psychology, cognitive psychology, and clinical psychology.

1.2.1 Egocentrism

This new social perspective that has broaden the field of exploration on negotiation, has trigger recent research to examined how negotiators subjectively understand the negotiation, how they psychologically define the game of negotiation, by taking contributions from social psychology, cognitive psychology, decision research, and clinical psychology. That more recent research approach will be described more in details in the phase three of studies on negotiation.

1.2.2 Negotiator relationships

As negotiation always occurs within relational contexts, negotiator relationships can influence negotiation process and outcomes in negotiation can influence negotiation process and outcomes. More specifically within dyadic relationships, research has found on one hand that positive relationships tends to foster cooperation and care about integrative outcomes. On the other hand close relations can also hinder negotiation outcomes as they negotiators can engage in a process called relational satisficing that refers to the sacrifice of instrumental gains for the sake of maintaining or fostering a relationship (Gelfand et al. 2006; Curhan et., 2008). However other researches highlighted as positive relationships and trusts can favour reciprocal agreements in future negotiation, thus they might be considered as a form of a social capital that can increase the negotiations future gains, and therefor might not be considered detrimental to negotiation. These dynamics complexify when examined within teams. Although there have been numerous studies that have found support that teams perform better then dyad (Hastie, 1986; Hinsz, 1990; Keenan & Carnevale, 1992; Stasser et al, 1995; Brodt & Thomson, 2001), they are exposed to numerous risks. For example they tend to be more competitive than when dyads negotiate (Komorita & Lapworth, 1982; Morgan & Tindale, 2002; Winquist & Larson, 2004), as, well as to become hyper-cooperative and perform lower outcomes (Thomson & Hrebec, 1996). When relationships are examined between teams factors as strong within teams identification (Keenan & Carnevale, 1992), as well as interdependent self-construal (Howard et al., 2007) may lead to particularly competitive behaviours.

1.2.3 Emotion

Research has explored the important role of emotions in negotiation at both intrapersonal and interpersonal levels. Work on intrapersonal effect of emotions has found that positive emotions increase negotiators to cooperative integrative strategies (Baron, 1990; Forgas, 1998 a,b) and seek for mutual gains (Carnevale & Isen, 1986); while negative emotions, as anger, affect the accuracy of judgments and result in more individualistic gains (Loewenstein et al, 1989) and lower joint gains (Allred et. al, 1997). However, other studies have found that both positive and negative emotions have the potential to play either a positive or negative role in negotiation. For example in case of cooperative tasks, negative emotions led to more cooperative behaviours compared to negative affect, and in case of competitive tasks the negotiators' negative emotion acted as driving force (and not positive emotion) by triggering more competitive strategies (Sanna et. al, 2003). Morover, recent research has also considered the effect of emotion of both valence and agency of emotion simultaneously (Butt & Choi, 2006; Butt et al. 2005). Whereas valence indicates qualities of emotions in terms of positive and negative, the valence refers whether the emotion is focussed on the self or on the others. Emotions with similar valence and different agency have different effect on negotiation. For example while pride increase competitive processes, gratitude tends to produce more cooperation and joint outcomes. While anger tends to foster aggressive behaviours, guilt-shame tends to yield passive behaviour neither cooperative nor competitive (Gelfand et. al, 2010). Researches on the role of interpersonal effect of emotions on negotiation have shown that the expression of emotional states can elicit complementary emotions in the opponents as they tend to adjust and shape consequently their responses. This help to solve problems, and engage more integrative behaviours. Overall results have shown as, in contrast whit negative emotions, expressions of positive emotions increase the likelihood of resolving dispute because of confirmation opponents' identities and states. However other researches has identified that the effect of expression of negative emotions like anger depends on a series of variable such as level of interdependence between the parties, the perception of the angry expression as justifiable, the degree of motivation to consider and process the information that is provided by the opponent's emotions that we will see is related to the level of their need for cognitive closure (Van Kleef et al, 2004). Some authors have pointed to the potential of benefit of emotional intelligence in negotiation. More specifically, negotiators with emotional intelligence (ability to understand, manage and use emotions), were: a) more likely to have feedback from counterparties of greater satisfaction with the negotiated outcomes, and desire to negotiate in future with emotionally intelligent partner (Mueller and Cuhran, 2006); b) make more accurate judgment of the situation and then to find an appropriate solution to the situation (Fullmer and Barry, 2004). Moreover higher capability of recognising emotions from facial expression is correlated to better performances in negotiation (Elfenbien et al, 2007). Study on relationships in negotiation has been examined according to three basic levels: the individual, the dyads and the network. The first level of domain explores how individuals' preferences and judgments are influenced by their social contexts. For example Loewenstein et al (1989). found that people care about counterpart payoff and outcomes, therefor in certain occasions we sacrifice our interests to help someone we love or two arm adversaries. Disputants

generally were found to prefer equal payoffs to unequal payoffs, even when unequal payoff slightly favoured themselves. This social influenced preference structure has been defined by Loewenstein et al. "social utility". Moreover, when participants were instructed to imagine a negative relationship with a counterpart, they tended to prefer inequity that favoured themselves. This suggests how the impact of a social utility and therefor the way people evaluate their own outcomes, depends on the relationships between negotiators.

The second level includes researches on how relationships between dyads can affect negotiation processes and outcomes. For example Bazerman et al. (1998a) found that certain behaviours that can be irrational from the individual perspective may be rational from the perspective of the dyad. They demonstrated that, given the opportunity to communicate freely, negotiators often appear irrational in their individual decision making although reach dyadic outcomes that perform better game theoretic models (Valley et al 1998).

Finally, the third level investigates the influence of relationships on a wider network of actors involved in a negotiation process. As an example of this, Tenbrunsel et al (1996) in examining the influence of relationships on the selection of a negotiation partner, found that people tend to preserve long-term relationships by matching their preferences with other people they already know rather than seeking out new partners, as per negotiator dyads.

Phase 3. Social context: new areas of interest

It is clear that the social context in negotiation play a critical role in shaping negotiation dynamics and outcomes, as negotiators are not isolated actors attempting to reach agreement. Moreover recent exploration of social factor has broadened the field, as processes, outcomes, dynamics of negotiation cannot be fully understood without taking into consideration a social context. More specifically a more integrate research perspective takes contributions from social psychology (Bazerman et al, 2000), cognitive psychology (Loewenstein et al, 1999), behavioural decision research (Thompson, 1998), and clinical psychology (Greenhalgh & Chapman, 1997; Greenhalgh & Okun, 1998). In addition to the aforementioned research we acknowledge the development of five emerging research areas important for understanding how negotiators subjectively understand the negotiation, and how they psychologically define the game of negotiation: temporal and technological context, cross-cultural, gender and structural power contexts (Bazerman et al., 2000; Gelfand et. al, 2011; Thompson, 2010); mental models; ethics and values defining the rules of the game being played; how the selection of a communication medium impacts the way the game is played; how negotiators organize and simplify their understandings of the negotiation game when more than two actors are involved. The aim is to offer a multifocal lens of observation to the complex phenomenon of negotiation that may help to have a more unified understanding and prevent the risk of ineffective negotiations.

The research areas aforementioned will be treated more in detail in the following paragraphs.

1.2.4 Temporal context

Each negotiation takes place within a specific temporal context and this dimension of the social context critical determinant of negotiation process and outcomes. Time pressure is the most studied of time-related topic in negotiation literature. Some of the researches (Gelfand et. al, 2011) conducted on the effect of time pressure have shown that: 1) time pressure leads to lower demands and less ambiguous objectives. In addition the party, under less time pressure, tend to fare better, as holds the treat of delay and therefore make its power in negotiating stronger; 2) negotiators under time pressure tend to be more cooperative and accept more concessions than under low time pressure; however, this is particularly true when negotiators are not accountable to constituents than when they are; 3) time pressure has less effect in complex compared to simple negotiations; 4) time pressure also affect information processing and sharing as negotiators tend to rely more on cognitive heuristics and stereotypes about opponents, and use less systematic processing of information. Recent research has also started to investigate other aspects of time such as a lapse between the negotiation and the implementation of the negotiation terms that results in a less antagonistic and more efficient negotiation. Other works have examined the effect of delays between offers and counteroffers in negotiation due to imposed interruptions or interfering external factors which tend to increase the conflict, eliminate the deadline effect, annul the first-mover advantage (the advantage gained by being the first initiating a market or segment or geographical/demographic markets or segments).

1.2.5 Communication Media Context

Also the communication mediums chosen by negotiators exert effects on its processes and outcomes. Many classic studies have investigated the differences in negotiations conducted in settings where people could hear and see each other, could only see each other, or could only hear each other. For example Bazerman et al (2000) have shown that negotiators' mental models can be impacted by the medium in which they negotiate, and that individuals negotiating face to face tend to be more trusting, perceive their counterpart as more credible, and develop greater rapports and cooperation's than when using other leaner media, such as via phone or in writing. Researchers found that negotiators without visual access to each other have a higher level of cooperation than do those with visual access (Lewis & Fry, 1977), have more integrative outcomes than do negotiators with visual access to each other (Carnevale and Isen, 1986; Carnevale, et al., 1981). However, researchers have found that when both audio and visual access are eliminated, leaving only text-based communication, the level of cooperation is lower (Wichman, 1970), and negotiation effectiveness may be impaired (Rubin & Brown, 1975). Deception, another important influence on negotiations, is affected by the communication medium. For example Giordano et. al (2007) found that individuals using instant messages were less able to detect deceptions than individuals involved in face to face interactions. Therefore, text-based computer-mediated communications, such as email and instant messaging, may hinder cooperative negotiations.

More recent studies have expanded on this classic research and have examined the influence of computer-mediated communication on negotiation outcomes, and the findings are mixed. Some studies found that computer-mediated communication is a not a good media in case people need to reach an agreement in which their motives differ (i.e., mixed motive) because of the lack of communication cues (Hollingshead et al, 1993). Other researchers found that computer-mediation led to less cooperative outcomes less accuracy in judging other parties' s interests (Arunachalam & Dilla, 1995), and that face to face interactions bring negotiators to perceive their partners as using more of a collaborative approach and less of a competitive approach than users of leaner media (Purdy et. al, 2000).

However, others studies found different results. For example in contract with Arunachalam & Dilla, the study by Rangaswamy & Shell (1997) found no differences in the integrative nature of outcomes across media; however, as suggested by Giordano et al (2007), the differences in this study's findings may be due to the type of communication technology used in the experiment. The study used an email system, which may have been more inefficient than the instant messaging systems used in the studies that found differences in the integrative and collaborative nature of the negotiations (Arunachalam & Dilla, 1995; Purdy et al., 2000). A communication system based on emails implying a significant delay between the sending and receiving of messages could cause negotiators to give up on trying to get the best deal for themselves as they feel are unable to respond efficiently to the other party and debate their points. Another study found that individuals negotiating via a computer are more likely to use avoiding behaviours and less likely to use forcing behaviours than individuals negotiating face-to-face (Dorado et. al, 2002). Other studies (Pesendorfer and Koeszegi, 2006) have examined differences between asynchronous (email) and synchronous (instant messages) electronic means and found that synchronous interactions were more encouraging behaviours characterised by competitions and intense emotions, while asynchronous communications were leading more to reflective and friendly conversations and information exchange. Regardless of the mixing finding these researches illustrated how technologies can impair or favour negotiation process, therefor making people more aware of tools can be used to gain effective negotiations.

1.2.6 Culture

Among the multiple dimensions of cultural variability cultural psychologists have identified collectivism-individualism, power distance, communication context, and conception of time the most relevant to the culture and negotiation literature.

Individualism-collectivism represent a number of cultural factors rather than a single trait and can be considered the most importantas well as the most frequently cited cultural dimension in studies of negotiation (Bazerman et. al, 2000).

A number of cross-cultural studies have found that negotiators member of individualist culture (e.g. United States, Great Britain, The Netherlands) are more concerned with preserving individual rights and attributes (independence, uniqueness) than relationships, whereas negotiators member of collectivist cultures (e.g. Colombia, Pakistan, Taiwan) are

more concerned with preserving relationships. Individualist negotiators tend to handle conflicts in direct ways through competition and problem solving, whereas culturally collectivist negotiators are more likely to handle conflict in indirect ways with the express interest of maintaining relationships, and to use deception, in order to avoid confrontation or preserving harmony (Bazerman et. al, 2000). Other researchers have found that anchoring biases are not necessary universal and that American negotiators because they are accustomed to open communication, are more affected to judgment biases compared to Japanese negotiators that uses indirect methods of communication. Moreover Gelfand at al. (2011), also found that cognitive biases can vary across cultures. As matter of fact, in intercultural negotiations it was found that American negotiators apply more fix-pie bias compared with Greek negotiators and this because of the win-lose competitive approach empathized in American culture. Yet, research has illustrated that compared with negotiators from Korea and Hong Kong, Americans are more subject to the fundamental attribution error in negotiation, thus they to make more internal attributions to the counterparts actions and behaviours. Also egocentrism vary across culture. cultural norms and values can be made more salient in situations in which someone Is embedded into a complex social network system with similar group members. Indeed it has been found that collectivist cultures were more cooperative with friends than with strangers, while individualistic cultures adopt a more consistent approach regardless they interact with strangers or friends. In a recent study Imai and Gelfand (2010) have addressed what predicts intercultural negotiation effectiveness. In this research, they examined the impact of cultural intelligence (CQ) on intercultural negotiation processes and outcomes, controlling for other types of intelligence (cognitive ability and emotional intelligence), personality (openness and extraversion), and international experience. CQ is defined as an individual's capability to adapt effectively to situations of cultural diversity, as a potential predictor of intercultural negotiation effectiveness. Dyad negotiators with higher CQ, compared with dyads with lower CQ have more cooperative motives and higher epistemic motivation in intercultural contexts. Moreover they will engage in more effective integrative negotiation processes (i.e., reciprocal and complementary sequences of integrative information behaviours and sequences of cooperative relationship management behaviours), which will allow them to achieve higher joint profits than dyads with lower CQ.

1.2.7 Gender

Researches in negotiation have long been investigated on the role of gender on negotiation process and outcomes in different areas of negotiation. Indeed researchers have explored effect of gender on time to reach an agreement, preferences for the medium of communication employed such as face-to-face or computer mediate; propensity to negotiate; effect of opponents and constituents gender on negotiator expectations and behaviours; difference between male and female with regard to negotiation style, strategies and their outcomes. However, no consistent results have emerged.

Recent work has stated to explore when gender is made salient at the negotiation table, similarly to the culture research discussed above. Women who negotiate for others are much more aggressive then when they negotiate for themselves that are triggers for gender differences. Gender triggers can be defined as situational characteristics that make gender salient and relevant to behaviour and/or performance expectations. If there is sufficient structural ambiguity to allow for subjective interpretation and individual improvisation, gender triggers can influence negotiators by eliciting them to fulfil gender-specific scripts.

Gender-based social roles and Gender-based performance stereotypes are examples of gender triggers. Gender social roles can potentially influence negotiators by giving constraints on what is viewed as attractive or appropriate negotiating behaviour (Eagly, 1987). When gender roles are salient, a set of behaviours enacted by a man may be viewed differently than that same set of behaviours enacted by a woman (Eagly et al., 1992; Rudman, 1998). Stereotypes can influence negotiation outcomes by creating expectations about how well one negotiator (the self or other) is likely to perform based on his or her socially identified gender (Beyer & Bowden, 1997; Kray et al, 2001; Lenney, 1981). Stereotypes when blunt activated (males are superior on a task) women react against the stereotype and are more aggressive. Bowles et al. (2007) asked participants to evaluate male and female job candidates who either tried to negotiate for higher salaries or did not. Results showed that participants were significantly less inclined to work with a woman who attempted to negotiate additional requests, as compared to one who did not, and male participants regularly penalized women more than men for attempting to negotiate, as women were perceived more demanding and less nice than male making the same requests.

1.2.8 Intrapersonal level of structural power in negotiation (BATNA)

Other researches in negotiation refer to the negotiator's power, defined as the ability to alter other people's outcomes. Power can be expressed and manifest in different way. While BATNA is a structural factor of power as it can change when environmental conditions change, other aspects such as personal power is mostly fixed. As we will see or seen gender is an important source of personal power then when activated and made salient can impact negotiating process and outcomes.

Fisher and Ury (1981) claim that negotiators in order to protect themselves from the risk of accepting a deal they would not be satisfied form (for being for example too accommodating to the view of the other side and get a quick agreement) often set a bottom line, defined as a stable position that is not to be changed. It can be considered as the least acceptable negotiated compromise. This might preclude them to both accept an agreement they should reject (set of a too low bottom line) and reject an agreement they should accept (set of a too high bottom line). An alternative measure that could protect from both risks of accepting unfavourable solution and rejecting solution that would be instead beneficial is known as BATNA ("best alternative to a negotiated agreement"). Introduced by Fisher and Ury it is described as the "only standard against which any

proposed agreement should be measured… that also has the advantage of being flexible enough to permit an exploration of imaginative solutions".

Develop an alternative to a negotiated solution lead us on whether we should agree or not agree with a certain solution proposed during the negotiation process. This depends upon the attractiveness to us of the best alternative. The more attractive is the BATNA the less what is proposed suits us. The negotiation power resides in the attractiveness of the best alternative. The negotiation of my salary will be different if I have only one job offer with respect to have had already two job offers. The difference is power. The better your BATNA then greater is your ability to improve the terms of any agreements. Moreover you have the power to break off the negotiation if the solution is lower than your BATNA.

When both sides involved in a negotiation phase have an attractive BATNA might convene to look elsewhere for getting respective interests satisfied, and not try further to reach an agreement. The authors also add that when the other side is appear stronger in terms of physical or economic power there is space for us to negotiate on the merits, and having a good BATNA can help us to negotiate on merits. As Sanson and Bretheron (2001) point out, BATNA is the best solution the party can develop which does not rely on any cooperation from the other party. Moreover too much focus on BATNA may undermine the cooperative frame of looking for win-win solutions, and lead negotiators to a distributive negotiation frame, and therefore harm the conflict resolution process (Wertheim et al., 1998; Davidson & Wood 2004). As Davidson and Wood (2004) assert "a BATNA should not be formulated as a routine precaution, but only when serious difficulties in the negotiations suggest it is needed". In this case negotiators' BATNA is to find new accommodations.

1.2.9 Mental Model

Much of the work on negotiation assumes that the structure of a negotiation is exogenous to the parties and that the cognition and affect of the parties is exogenous to the structure. But work on mental models of negotiation suggests that the parties' perceptions of the negotiation structure are critical and endogenous to the negotiation and that, similarly, the cognition and affects of the parties are critical and endogenous to the negotiation.

With regard to mental models in negotiation researches on negotiation cognition has examined how personal schema, perceptual frames and mental model can dramatically affect negotiation. Most recent research has examined also the role of social motivation, epistemic motivation and the motivational biases that negotiators can be subjected to. The concept of mental models is related to some other psychological constructs. Although we recognize the substantial overlap, both within the literature and within our definitions, we see the construct of mental models differing from frames, scripts, and schemata in its expansiveness and its reliance on both social and cognitive processes (Gentner & Stevens 1983).

Bazerman et al. (2000) define a mental model as a cognitive representation of the expected negotiation, a representation that encompasses understanding of the self,

negotiator relationships, attributions about the other, and perceptions and knowledge of the bargaining structure and process.

They distinguish between individually and mutually shared models that respectively studying mental model as individually held cognitive concepts or as shared definitions that develop interactively.

1.2.9.1. Individually held mental models

In an integrative task, Thompson & Hastie (1990) asked participants to if structure of the situation allowed for integrative trade-offs, and they showed that fixed-pie biases result in a largely predictable outcome that fails to capture gains from integration, even for those issues for which the two parties had identical and compatible interests. The authors demonstrated that individuals who did not modified their perceptions at the onset of the interaction keep the fixed-pie biases throughout the negotiation.

Larrick & Blount (1997) showed how the definition of the situation individual held affects processes and outcomes of negotiations. More specifically, given two situations that that are identical in their objective structures (social dilemma and ultimatum game), they found that when the negotiation is framed as a social dilemma, the second party accepts considerably lower payoffs than when the interaction is framed as an ultimatum game. They showed that the critical difference is given by the role perceived in the interaction: when the subject perceives himself as claimers, in his mental model of claimer does not include the rule to reject the first party's proposal, and therefor tend to be more cooperative.

Ross & Ward (1995) investigate how the name of the game played community game or wall street game influenced individual approaches to negotiation (cooperative/competitive) of individual playing the same prisoner's dilemma game (labelled differently). The construal manipulation dramatically affected the tendency of cooperation in the community game that was in nearly twice that in the Wall Street game.

Mental models can also focus on the other parties in the negotiation, for example the role of attribution and interpersonal perception in conflict resolution. Indeed, researchers as Keltner and Robinson (1995, 1996) have explored the problem of naive realism in mental models (the belief that we see reality as it really is) of social conflict and the resulting false polarization effect (tendency for disputants to overestimate the distinctiveness of rival groups regarding to a contested question). In one study, participants who identified themselves as either pro-life or pro-choice responded to a variety of questions regarding attitudes about abortion overestimated the extent of ideological difference between themselves and their opponents and saw their ideological opponents as more extreme than they actually were (Keltner & Robinson, 1997). In other words, pro-life and pro-choice individuals perceived themselves as much farther apart on abortion than they are in reality. In addition, mental model have also been studied in relation to the way people perceive themselves in the negotiation. Montgomery (1998) showed that individuals tend to change their roles with the situation and not always to hold a role immutably. So the same person

that in the same economic structure plays the role of the business man or of a friend will act differently according to the role played.

1.2.9.2. *Shared mental models*

Within a given negotiation, parties could hold different and contradictory individual mental models. The research on shared mental model suggests that these asymmetries are unlikely to continue through the negotiation, as negotiators quickly create shared understandings of the situation, the parties, and the rules of acceptable behaviour (Messick, 1999). In literature is provided evidence that interpersonal beliefs guide social interaction, as it creates a social world that fits the expectations of the actors. Actors engaged in social interaction behave as if their beliefs about the others are true and tend to act in ways that verify these beliefs. Similarly in negotiations the parties, through their shared systems of belief create the interaction and its outcomes. Therefore negotiation script is shared and dynamic. However very few studies in literature explore the way frames can communicate during the negotiation and can be developed mutually in interaction. For example Pinkley & Northcraft (1994) claim that negotiators may have one of three different perceptual frames: relationship–task (the degree to which a conflicts are considered problems in relationships or tasks), emotional–intellectual (the degree to which a conflicts are considered to be about emotion versus intellectual), and compromise–win (the way people in conflicts assign blame with either one party to blame or both to blame. In one study the authors measured these three dimensions in disputant before and after a multi-issue negotiation and found that the parties' frames mutually influence each other, converging during the interaction. In turn, these frames affect individual and joint monetary outcomes, as well as satisfaction with the outcomes. Moreover they found that negotiators with both task and cooperation and cooperation frames tend to achieve higher outcomes. Also De Dreu et al (1995) exploring how mental models can be developed mutually in interaction at a more cognitive level found that the other party's gain-loss frame influences a negotiator's behaviour. Therefore, if one party in a negotiation holds a loss frame, the communication during the negotiation process will largely reflect this frame, regardless of the other party's frame at the onset of the negotiation.

Bazerman (2010) mention as Valley and Keros in two parties' negotiation interactions found that when the parties do not come to a common model of the interaction, the negotiation is much more likely to result in impasse than when a single model is shared, regardless of whether the shared model defines the interaction as trusting or competitive.

Wegner et al (1991) proposed instead that shared mental models within close relationships not rely on interaction but result from shared memories. So even though the solution to a certain issue may not be readily available, close group members know how to come together and develop an appropriate response. Friends tend to classify, describe, and evaluate information about others and themselves in similar ways. Extending this to negotiations, some authors have found the existence of shared model of appropriate bargain behaviours between friends, and that positive effects of friendship and eefective

communication in negotiations are mediated through shared scripts (Barsness & Tenbrunsel 1998, Halpern 1997).

1.2.10 Ethics and Sacredness in Negotiation

The definition of ethical values in negotiation depends on the understanding of the negotiation situation that conveys information about rules, boundaries, and the strategies permissible. For example interests, motivations, and incentives can influence the interpretation of ethical standards of deception. A study from Kronzon & Darley (1999) showed that participants' s perceptions of how ethics apply in a specific situation depend on which rules favour participants. Participants who had to evaluate whether an act of deception was ethically acceptable tended to perceive the act as more reprehensible when they were allied with the victim than when allied with the perpetrator of deception. Moreover deception increases as the incentives for performance increase (Tenbrunsel 1998). Furthermore, O'Connor & Carnevale (1997) found that deception is more likely to occur when people have individualistic motivations than when they have cooperative motivations.

Negotiations that involve sacred or ideological values - that are closely related with negotiators' identities - are more likely to evoke self-defensive and bias information processing. Ethical disagreements seems to be more difficult to resolve when their goal is related to moral correctness based on some internal, subjective standard than on interests (Kronzon & Darley 1999, Tenbrunsel et al, 1996). Tenbrunsel (1999) suggested that construal differences across parties may actually lead to greater expectations of unethical behaviour than uniformly high incentives to behave unethically. When the issues of negotiation are seen as immoral (setting a price on human life or creating markets for human body parts) compromise or trade becomes extremely difficult, and even its consideration of may be seen as reprehensible (Tetlock et al., 1996). With regard to how people respond to taboo trade-offs Thompson & Gonzalez (1997) pointed out that the daily decisions of life can force people to make trades between values they hold, the issue claimed as sacred becomes actually pseudo-sacred. In this case negotiators consider trading that issue, given adequate compensation (people may decide to sell their kidneys in desperate times). Concerns about ethics and sacredness regards the definition of a general formulation of ethical rules against which any tactic or behaviour can be evaluated in negotiation. However although ethics much of the evidence on their use in actual negotiations highlights their ambiguity and flexibility. Indeed negotiators tend to make decisions of ethical appropriateness is egocentric-based, as they tend to approve those rules that favour themselves. However, negotiators can also impair themselves by claiming certain issues to be sacred when in fact they are not. Doing so they place limitations to the game and therefore harm their ability to find integrative trade-offs.

We agree with Gelfand (2011) and Bazerman (2000) who hope that these multiple lenses can create a more unified understanding so that psychology can help the world overcome barriers to effective negotiation behaviour.

2. Normative – analytic approach: Integrative and distributive negotiation

In addition to the psychological processes exanimated above, due to the influence of economics on negotiation research another dependent variable is always discussed in negotiation: negotiation outcomes. Negotiation outcomes include integrative and distributive features of the agreement (Thompson et. al, 2010).

The term integrative indicate the extent to which the negotiated outcome satisfies the interests of both parties in a way that implies the outcome cannot be improved upon without hurting one or more of the parties involved (as for example the Pareto-optimal agreements).

Integrative negotiation was initially discussed by the organization theorist Mary Follett (1940), and later conceptualized principally within the field of labour negotiations (e.g., Walton and McKersie, 1965; Slichter et al.,1960). The author remarked the value of constructive conflict organizations, as its nature offers a measure of our social progress. She strongly advocated the need for an integrative (problem-solving) solutions for managing organizational conflicts, and considered the use of other methods, such as suppression, avoidance, domination, and compromise, as ineffective (Rahim, 2010). According to Follett only an integrative solution represents an authentic stabilizing resolution of an issue, as it leaves no residual frustration that might cause a recurrence of the issue later (McNary, 2003).

The conceptualisation of integrative negotiation was the forerunner of the concepts of integrative and distributive bargaining elaborated later by Walton and McKersie (1965).

In their work "A Behavioral Theory of Labor Negotiations" Walton and McKersie defined the differences between distributive bargaining and integrative bargaining in the field of labor–management relations. Distributive bargaining is a negotiation method in which two parties strive to divide a fixed pool of resources, often money, each party trying to maximize its share of the distribution. The other party, the "opposite" side, is regarded as an adversary rather than a partner. The distributive approach is a fixed-sum game, and the limited resource is often termed a fixed pie. It is also known as "zero-sum", competitive, or "I win-you lose", because of the assumption that one person's gain results in another person's loss. The integrative approach is a cooperative approach to negotiation or conflict resolution. It is often referred to as a win-win or mutual-gains approach, although the term win-win today is so popular that been misused to refer to any collaborative process, as we will see following (paragraph 2.1.4). The integrative approach involves making concessions to reach an agreement. In addition to the distributive approach, it involves searching for mutually profitable options and logical trade-offs. It is also referred as expanded-pie approach (vs the distributive fixed-pie approach) because parties cooperate to maximise benefits by integrating their interests into an agreement that can satisfy both parties and not only one party's interests. Integrative solution vs distributive solution is described in the story of two sisters who argued because both coveted the same orange, attributed to Follett in the 1920 (Fisher and Ury, 1981). A distributive solution is described

by the decision to set the dispute by dividing the orange in two (50%). An integrative solution would be finding a solution that could maximise both parties' interests, implies expressing both true interest in the orange. Indeed if each sister had integrated their interests they could have obtained what they really needed from the orange (and more than half) without depriving the other of his or her interests. Once home the sister who wanted only the juice had only half of the juice and threw out the peel. The other sister, who wanted only the peel for making a cake added only half of the orange skin for the cake and, threw out the pulp. The story reveals, when people get locked into solutions or habitual patterns of thinking, they easily become blinded to the grater possibilities that creative thinking might offer. Both sisters would have obtained a greater and real satisfaction of their interests if they had openly shared mutual needs. The integrative solution involves Pareto optimality (Thompson, 2010).

Analytic models of negotiation tends to describe the negotiation process in abstract, formal and general terms, and tend to empathise the rational choices and strategies that should be employed by the parties for reaching an agreement or an optimal agreement. The key assumption is that negotiation is an exercise in bargaining. There are two models of abstractions that lie of what it means to act rationally in two contexts: 1) economics: process is commonly described in terms of bargaining between two parties that needs to decide on the allocation of limited resources; 2) and model of strategic interactions where negotiation is seen as game of strategy in which each party makes a choice between integrative and distributive solutions.

2.1.1 Bargaining process

The negotiation process is commonly described in terms of bargaining between two parties that needs to decide on the allocation of limited resources, as per the bargaining problem). The bargaining problem can be considered a problem of finding the equilibrium between the choices of the 2 parties involved, as per the optimal Pareto point. This is the optimal state of allocation of resources beyond which any further change would increase the payoff for one party at expenses of the other. These reflect that parties should cooperate in order to maximizing their own individual payoffs, (optimal agreement point). Similarly, the game theory describe the interaction between players in terms of possible actions, usually represented by a matrix 2 players x 2 options, which shows players, their strategies, and pay-offs. Negotiation here is seen as a strategy game where negotiators are viewed as

Rational decision makers moving between a finite numbers of possible "choices", each with known pay-offs, where the ends determines the outcome. Therefore the choices are guided by the calculation of which option will maximize players' ends or payoffs. Players from a set of possible choices choose those actions that will allow them to achieve desired outcomes.

The analytic model is grounded on the belief that there is a best optimal solution that should guide actors to interact efficiently. This model neglects the consideration of significant variables involved in negotiation processes. Hoverer, despite of the criticism,

these models have the advantage of having helped to realise that negotiation occurs with a change in the status quo, given to the possibility of changing original positions in order to reach desired outcomes.

As discussed earlier behavioural models have tried to describe what parties involved in negotiation do to reach final agreements. The majority of the research in this sense derives from experimental tasks, and most important finding from this research is that A and B often fail to find agreements which are Pareto optimal (Pruitt, 1981; Pruitt & Carnevale, 1993). This means that there is some other agreement which would give either A or B or both significant gains, at little or no cost to the other. According to Pruitt and his associates, the main predictor of MJP outcomes (Maximise Joint gain or Profit) is that A and B each adopt a problem-solving strategy. One obvious possibility is that this will occur when A and B each exhibit high concern for their own outcomes and high concern for the other's outcomes (but see Morley, 1996). The model which specifies the factors which lead to this combination of motives is known as the dual-concern model (Carnevale & Keenan, 1992; Pruitt & Carnevale, 1993). It has been used to integrate findings which deal with negotiators' assigned goals, with their relationship to their constituents, with the possibility of future interaction, and with the effects of mood. One suggestion that seems to have a more general significance is that MJP outcomes are more likely when negotiators are motivated to engage in systematic trial and error (Pruitt, 1981; Carnevale & Isen, 1986).

Indeed although rational behaviours is equated with maximisation of gains in a negotiation process there has been increased recognition of the importance of social and psychological variables in defining the quality of the outcomes: relationships, trust between parties, negotiators willingness and motivation to negotiate with the party in future (Thompson et. al, 2010). Integrative agreement focuses on the value of Integrative agreements versus compromise agreements for reaching a higher joint benefit (Pruitt, 1981; Pruitt and Carnevale, 1993). Although they can be based on known alternative, integrative agreements often involve the development of new alternatives for reaching an agreement, and therefor emerge from creative problem solving (the story of the two sisters fighting for getting an orange). Because integrative agreements are mutually beneficial tend to strength relationships between parties involved. They can be considered likely to be more stable than compromise agreements that can be unsatisfactory for one of the party, causing the issue to come up again another time.

2.1.2 Game theory

Game theory is the study of mathematical models of conflict and cooperation between intelligent rational decision-makers (Myerson, 1991). A game consists of three components: 1) a set of players; 2) a set of available strategies for each player; 3) a set of payoffs to each player for each possible configuration of strategies. Negotiation is considered as a game of strategies in which two people A and B make separate choices either to make concession to the other party or maintain current level of demand, or to choose between integrative or distributive approaches. The outcomes of the games

depend on the choices of A and B so that what A gets depends on the choices made by B, and in the same way what B gets depends on the choices made by A. The logic or strategic form of the game is usually represented by a two choices-four cell matrix which shows two players strategies, and payoffs: A and B both stand firm; A and B both make concessions; A stands firm and B does not; B stands firm and A does not. Two games known as "prisoner dilemma" and "chicken" are used to represents dilemmas in negotiations. The Prisoner's Dilemma game was constructed to shows why two "rational" individuals might decide to not cooperate, even if it appears that this will be in their best interests (each player has a preferred strategy that collectively results in an inferior outcome). A classic example the Prisoner's Dilemma is reported as follows: two members of a criminal gang are arrested and imprisoned. Each prisoner is kept confined to their cells, so no means of speaking to or exchanging messages is possible. The police admit don't have enough evidence to convict them on the principal charge, and they plan to sentence both to a year in prison on a lesser charge. The police offer to each prisoner the opportunity either to betray the other, by testifying that the other committed the crime, or to cooperate with the other by remaining silent;

- If A and B both betray the other, each of them will be convicted on 2 years in prison
- If A betrays B but B do not confess, A will be set free and B will serve 3 years in prison
- If B betrays A but A do not confess, B will be set free and A will serve 3 years in prison
- If A and B both do not confess, both of them will only serve 1 year in prison (lesser charge). The matrix of the payoff is shown in fig. 1.

	B cooperate	*B defect*
A cooperate	(A)**1**, (B)**1**	(A)**3**, (B)**0**
A defect	(A)**0**, (B)**3**	(A)**2**, (B)**2**

Fig. 1: Prisoner's Dilemma payoff matrix

By defecting, regardless of what the other decides, each prisoner gets a higher pay-off. The reasoning involves an argument by dilemma: B will either cooperate or defect. If B cooperates, A should defect, since going free is better than serving 1 year. If B defects, A should also defect, since serving 2 years is better than serving 3. So either way, A should defect. There are many versions of the Prisoners' Dilemma games, however in all Prisoners' Dilemma games, there is a single Nash equilibrium (the outcome highlighted in bold 1,1). The payoffs to both players in the dominant strategy Nash equilibrium are less good than those which would result from choosing their alternative (defect) strategy. The chicken game has instead a different structure of payoffs. The game was constructed in the same manner but for a different purpose: no player has a preferred strategy, and all players are in direct competition with one another. In the game of chicken two players (A and B) drive toward each other at high speed along a one-lane road in the desert. The first to swerve away yields the bridge to the other and gets called chicken), while the other driver and gets called hero. If neither player swerves, the risk is crash and both drivers die. If both swerve off the road at the last minute, they are both called chickens. But if neither

player swerves, the two cars crash and they both die. It is presumed that the best thing for each driver is to stay straight while the other swerves (since the other is the "chicken" while a crash is avoided). Additionally, a crash is presumed to be the worst outcome for both players. This yields a situation where each player, in attempting to secure his best outcome, risks the worst. The principle of the game is that while each player prefers not to yield to the other, the worst possible outcome occurs when both players do not yield. Figure 2 presents arbitrarily numeric payoff of the game.

	B cooperate (swerve)	*B defect* (straight)
A cooperate (swerve)	(A)0, (B)0	(A)2, (B)-1
A defect (straight)	(A) -1, (B)2	(A) -5, (B)-5

Fig. 2: Prisoner's Dilemma payoff matrix

The benefit of winning is 2, the cost of losing is -2, and the cost of crashing is -5.

In contrast in the chicken there are no dominating strategies, and this makes a big difference with the Prisoner's Dilemma. The best strategy is to anti-coordinate with the opponent, because choosing to perform the same action would result is a loss and not in a gain. So A should Defect when B Cooperates and Cooperate when B Defects, and vice versa. But if one of them had a choice, he would prefer to be the one Defecting. Mutual Defection is the worst outcome and isn't an equilibrium, but neither is Mutual Cooperation. In fact, the equilibria are when A and B anti-coordinate and are inherently adversarial. In this situation there is more than one Nash equilibrium which is a pair of strategies for which neither player gains by changing his own strategy while the other stays the same.

It is recognised that analytic models simplify drastically the bargain problems, and provide inadequate models of people, process and contexts. However, it is also true that has the merit of considering that negotiation involves mixed motives, and can be seen as process that begins one someone see changes or a possibly of changes in the status quo, and help to understand that people can look at the status quo in different ways. Analytic models have also helped authors such as Walton and McKersie (1965) to draw the difference between integrative and distributive approaches in negotiation- (Morley, 1997). Unfortunately with exception of few scholars (Walton and McKersie) most of who works within the analytic paradigm seems to assume there is a little more to the process of negotiation than the exchange of bid and counter-bid. Differently, as discussed above the descriptive model offers a perspective that considers why, how and where a negotiation takes place.

2.1.3 Theoretical framework for clarifying integrative interaction

Johnson and Johnson (2003) argue that the social interdependence theory provides the framework for understanding the nature of integrative negotiation, as well as operationalizing the procedure for engaging in integrative negotiation, and implement them. The authors argue that although there has been extensive discussion in the

literature of the need and the advantages of integrative negotiation, they recognise a lack of a conceptual clarity on its nature, and consistent research on its actual use in real world settings. Integrative negotiation, initially conceptualised by Follett in 1940, in the field of labour negotiation, has been defined in various ways: integrative issues (Johnson, 1967); integrative goals (Walton & Mckersie, 1965; Johnson & Johnson, 1989); integrative agreements (Pruitt, 1981); behaviours and skills increasing the possibility of producing integrative agreements (Johnson & Johnson 1967, 1971, 1972); as occurring once both concern for self, and concern for others concern are equally important (Thomas, 1976; Pruitt and Carnevale, 1993; Rubin, Pruitt, and Kim, 1994), also known as dual concern theory of conflict.

Social interdependence offers a theoretical framework for clarifying nature and procedures of integrative interaction. Johnson and Johnson take inspiration from the concepts of group dynamic whole conceptualised by Deutsch (1949, 1962) taken over from the Gestalt psychology (Koffka,1935) and the field theory (Lewin, 1935, 1948).

Social interdependence exists when the outcomes of individuals in a group setting are affected by each other's actions (Johnson & Johnson, 1989). There are two type of social interdependence: negative (competitive) and positive (cooperative).

No interdependence result in absence of interaction as the individual perceive that to obtain his own interests there is no necessity to interact with others.

The negative interdependence occurs when individuals perceive that the accomplishment of their goals depends on the failure of other's goals, as they feel competitively linked with others.

The positive interdependence occurs when individuals perceive that they can achieve their goals if and only if the other individuals with whom they are cooperatively linked can achieve their goals, therefore, they tend to promote and support each other's efforts to achieve those common goals (Johnson & Johnson, 2009). Therefore, positive interdependence results in promotive interaction that according to Johnson & Johnson (2003, 2009) consist of a number of variables, including the followings: establishing mutual trust between group members; communicate effectively being clear, accurate and unambiguous (wants, feelings, and interests); exchange of the resources needed, information, as well as materials; provide mutual help and assistance to group members; strive to support group members' mutual benefits; stimulating each other's reasoning and conclusions in order to encourage decision making and creativity, taking other's perspective in order to better understand them and their actions.

With regard to the definition of negotiation, broadly in literature there are two main approaches to negotiation. Distributive negotiation (competitive, win-lose) and integrative negotiation (cooperative, win-win).

Within the theory of the social interdependence, the positive interdependence results in pattern of interaction between the group members based on cooperation.

More generally given that integrative negotiation can be seen as a cooperative process and distributive negotiating as a competitive process, it is reasonable to consider them within the Social interdependence theory.

To paraphrase the authors' words (Johnson & Johnson, 2003) "Integrative negotiations may be viewed as a cooperative process to the extent that it results in the same process and outcomes as cooperation"

The authors have also identified the need for practitioners to have a step by step procedure for engaging integrative negotiations, considering that research so far has been limited to the definition of procedures (Follett, 1940) or guidelines (Fisher and Ury, 1981; Littelfiled et al., 1993) for enhancing the effectiveness of negotiation, thought there is no evidence whether training on those guidelines or procedure would actual increase the ability to integrative negotiation.   They have specified a six steps for the integrative negotiation   procedure: (1)   identify   and define the problem; (2) Communicate feelings accurately; (3) stating the reasons underlying wants and feelings; (4) taking the opponent's perspective in order to understand the terms of the conflict by using other's frame of reference; (5) identify several optional integrative agreements; and (6) decide which optional agreement to implement.

The results forms a meta-analysis of 16 studies on integrative negotiations (Johnson & Johnson, 2003) indicate that both cooperation (positive interdependence) and use of integrative negotiation results in the same processes and outcomes. Therefore, integrative negotiation may be viewed as form of promoting interaction that results in the outcomes of cooperation.

More specifically, those findings have shown that being trained in the integrative negotiation procedures: promotes cooperative interactions between group members in achieving common goals; the use of those procedures is retained over time and transferred to other and different setting; more integrative agreements are reached; and develop more positive attitude toward conflict, as it is viewed as a possibility to obtain positive outcomes if managed constructively.

2.1.4 Evolution and misuse of the term WIN-WIN

It is interesting to briefly mention how the term win-win is and has been used inconstantly in literature by different scholars (McNary, 2003), so to be aware that its meaning is shaped by the model for which and in which is used.

Follett contributed greatly to the win-win philosophy, coining the term in her work with groups. Her approach to conflict was to embrace it as a mechanism of diversity and an opportunity to develop integrated solutions rather than simply compromising.

The term win-win has been often used in place of the term compromise, as well as synonymous of collaborative-integrative style to conflict resolution. In its original meaning, integrative is referred to a collaborative process between parties that leads to a solution that satisfy both parties in a conflict. The definition of the agreement needs of an integrative and not distributive formulation of the issue to be addressed.

In literature, sometimes win-win identifies with integrative, although it implies a paradox, because the term win-win although indicates the idea of a conflict going on, refers to a decision making process that does not necessarily involve a conflictive dimension. For

example the Wissman paradox, posits that win-win is an illusion, as only two possible situations exists: no conflict or compromise. Whereas, the term integrative assumes that there is a conflict that to be solved needs the activation of problem solving in both the parties involved.

In Thomas' joint outcome space of conflict management styles, win-win represents a precise point in the space of collaborative management style, where on the axis party's desire to satisfy other's concerns there is high level of cooperation and e on the axis party's desire to satisfy own concerns there is high level of assertively (that in this model refers to a competitive-dominating process). Differently, within the Covey's paradigms of human interaction, win-win is represented by a larger quadrant (and not a point in the space) that includes different shades and meaning of win-win. For example is his model in contrast to Thomas, the style compromising-sharing is not included because is considered a low form of win-win; moreover Covey introduces the term no-deal corresponding to an high form of win-win. Yet, in the work of Fisher and Ury (1981), win-win is associated to mutual gain, the authors advocate "government policy deployment to create win-win or mutual gains between management and labour", as to say that win-win refers to the results/outcomes of the negotiation process and not the process that brings to a mutual gain solution (e.g. integrative).

3. Styles of handling Interpersonal conflicts

The first conceptual scheme for categorizing styles of conflict was revolved around the cooperation-competition single dimension dichotomy (Deutsch, 1949, 1973). The limitation of single-dimension model resides in the fact that it fails to consider styles that involve high and low concern for both self and others (Thomas & Kilmann, 1974; Pruitt & Rubin, 1986; Rahim, 2001).

Subsequently, the theorists Blake and Mouton presented the first new two-dimensional grid for classifying the styles (1964, 1970) which is a self-oriented and others-oriented concern. Other authors have labelled these two dimensions differently (e.g. assertiveness – cooperativeness, Thomas, 1976; concern for self and others, Rahim, 1983; concern about own and others' outcomes, Pruitt & Rubin, 1986), but the basic assumptions have remained similar (Van de Vliert & Kabanoff, 1990). It has also been debated that individuals can act among three or four conflict styles (Pruitt, 1983; Putnam & Wilson, 1982), although evidence from confirmatory factor analyses supports the conclusion that five factor model has a better fit with data than models of two, three and four styles for handling conflict (Rahim & Magner, 1994, 1995). As will be described in detail below, Thomas proposed the first model with five managing conflict modes, same as per Rahim who developed five conflicts handling styles matching with the situations where each of those could be appropriate or inappropriate. Despite its wide acceptance, this conceptualisation of conflict handling style has received some criticisms. For example, the dual concern conflict handling style theory seemingly to postulate that when someone faces a conflict tend to employ only one conflict handling style (van de Vliert et. al, 1995),

while research has shown that in many conflict situations, people use a variety of conflict handling styles. Moreover, Van de Vliert and Hordijk (1989) confirmed in an empirical study that compromising was similar to integrating and questioned the validity of compromising as a distinct conflict handling style. For the purpose of designing our training scenarios we have chosen the model developed on Rahim and Bonoma (1979), based on Thomas's first theorisation and suggestions for two main reasons: 1) the stress of the model on the learning process, the idea of enabling organizational members to learn the appropriate use of the conflict styles depending on situations (Rahim, 2001); the instrument widely validated that Rahim and Bonoma developed for measuring the different styles of handling conflict, which might be useful within the group target assessment phase. The model of interpersonal conflict has given rise to several theoretical approaches conceptualising and empirically evaluating different conflict management styles (see fig. 3)
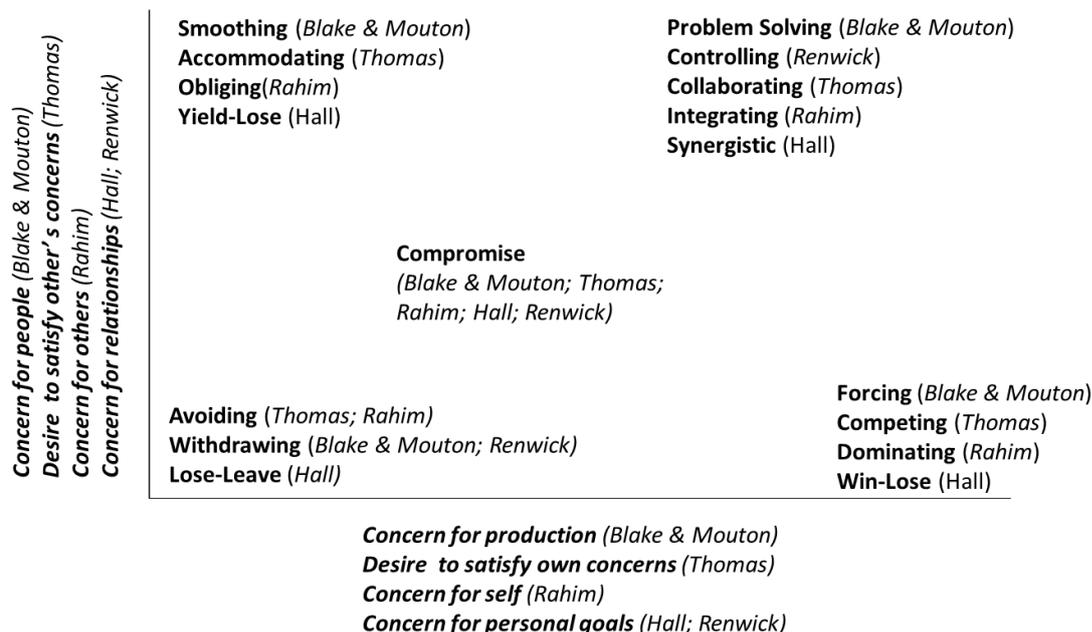
Concern for people (*Blake & Mouton*)
Desire to satisfy other's concerns (*Thomas*)
Concern for others (*Rahim*)
Concern for relationships (*Hall; Renwick*)

Smoothing (*Blake & Mouton*)
Accommodating (*Thomas*)
Obliging(*Rahim*)
Yield-Lose (Hall)

Problem Solving (*Blake & Mouton*)
Controlling (*Renwick*)
Collaborating (*Thomas*)
Integrating (*Rahim*)
Synergistic (Hall)

Compromise
(*Blake & Mouton; Thomas;
Rahim; Hall; Renwick*)

Avoiding (*Thomas; Rahim*)
Withdrawing (*Blake & Mouton; Renwick*)
Lose-Leave (*Hall*)

Forcing (*Blake & Mouton*)
Competing (*Thomas*)
Dominating (*Rahim*)
Win-Lose (Hall)

Concern for production (*Blake & Mouton*)
Desire to satisfy own concerns (*Thomas*)
Concern for self (*Rahim*)
Concern for personal goals (*Hall; Renwick*)

Fig. 3. Adapted from Feist G.J, Gorman M. Handbook of the Psychology of Science (2014).

3.1.1 Two-three-four and five factors model of handling interpersonal conflict

Due to the extent of the ENACT project we will specifically focus on the interpersonal conflict. Following are discussed different styles model of handling interpersonal conflict. Interpersonal conflicts can be handled with various styles of behaviour. In literature is it possible to distinguish different conflict resolution styles taking into account two-three-four

and five factor model. Deutsch (1949) first suggested the two factors cooperative–competitive model in the research on social conflict. Similarly to game theory perspective this model uses a cooperative–competitive continuum to simplify the categorization of conflicts. Deutsch and associated have suggested that the cooperative style compared to the competitive style is more effective in managing conflict, leads to a more functional outcomes, although these studies have not presented evidence of a positive correlation between cooperative style and job performance and productivity. Despite the factor model, it is quite unlikely deal with situations implying purely cooperative or purely competitive conflict, so game theorist have recognised that conflict situations can be characterized by both cooperative and competitive aspects (mixed-motive conflicts), that is very similar to the compromising style proposed by Rahim. Example of three styles of handling interpersonal conflict were proposed by Putnam and Wilson (1982) non-confrontation; (obliging in Rahim), solution-orientation (integrating in Rahim), and control (dominating in Rahim) and Lawrence and Lorsch (1967) with the three styles forcing, smoothing, and confrontation. According to Rahim the main limits of those models regards that the theoretical basis for the three-category conflict styles is not clear and statistical instruments and methods for investigating and analyse the factors are not sufficiently robust.

Other two models of the three styles of handling conflict belong to research in the area of marital conflict, respectively developed by Billingham and Sack (1987): reasoning, verbal aggression, and violence; and Rands et al (1981): attack, avoid, and compromise. However there is no evidence of the relationships between the three conflict styles and organisational behaviour, and individual, group, organizational outcomes.

Pruitt (1983) suggested a four style model of handling conflict based on the dual concern model for self (high or low) and for others (high or low), resulting in the following styles: yielding, problem solving, inaction, and contending. Like the previous models compromising is not recognised as a distinct style. Empirical evidence from laboratory studies (Pruitt, 1983; Pruitt and Carnevale, 1993) has shown that problem solving is the most effective style for managing conflicts, although these studies have not presented evidence of how the four styles can impact on job performance and productivity. Another four styles model of conflict management resulted useful for the conceptualization and operationalization of marital conflict was proposed by Kurdek (1994), and comprises of the following 4 dimensions: problem solving, conflict engagement, withdrawal, and compliance.

The first five factor model of handling interpersonal conflict in organizations was conceptualized by Follett (1940). The author first found that conflict was managed in three main ways: domination, compromise, and integration, as well as secondary ways avoidance and suppression.

The first conceptual scheme for classifying the styles for handling interpersonal conflicts in five types was proposed by Blake and Mouton (1964): forcing, withdrawing, smoothing, compromising, and problem solving. The model was based on a two main dimensions: production concern and people concern. These dimensions describe the attitude of the manager of being a task or relation oriented leader, from which combination result five

leadership style (see Fig. 4). Similarly to the leadership grid proposed by Blake and Mouton, it is worth of note to remember that Hersely and Blanchard (1969) situational leadership theory concentrates on two key leadership behaviours, whereas the former labelled these two dimensions task and relationship behaviours (Fiore, 2009).
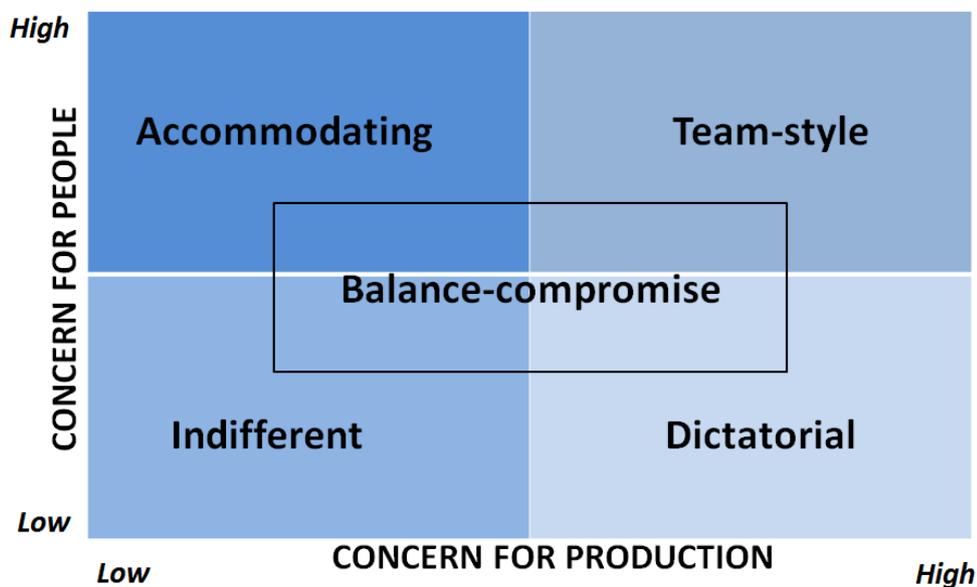

Fig. 4. Blake and Mouton: leadership grid

Blake and Mouton's scheme was reinterpreted and extended by numerous researchers. For example Thomas (1976) extended this model including the intentions of the parties involved, and classified the conflict handling styles using two dimensions assertiveness (attempting to satisfy one's own concerns) and cooperativeness (attempting to satisfy other party's concerns). A combination of the level of assertiveness and cooperativeness dimensions determines the following five conflict handling modes employed by the parties: competing (assertive and uncooperative), collaborating (assertive and cooperative), compromising (moderate in both assertiveness and cooperativeness), avoiding (unassertive and uncooperative) and accommodating (unassertive and cooperative).

The Rahim's five styles of conflict handling model was based on both the grid of managerial styles proposed by Blake and Mouton, as well as the Thomas's five modes model. Rahim and Bonoma (1979) differentiated their five styles of handling interpersonal conflict on two dimensions: 1) concern for self (the degree -high or low- to which a person attempts to satisfy one's own concerns), and concern for others (the degree -high or low- to which a person attempts to satisfy the concern of others). As pointed out by Rahim (2011) these dimensions portray the motivational orientations individuals during conflict. The authors by combing these two dimensions identified 5 conflict handling styles: integrating, obliging, dominating, avoiding and compromising. Rahim and Bonoma consolidated and improved their framework by involving over 1,200 managers across the

United States (Rahim, 1983). Compared with the model proposed by Thomas (1976), Rahim and Bonoma uses Integrating as Collaborating, Obliging instead of Accommodating, and Dominating as Competing. They labelled the two dimensions (cooperativeness and assertiveness and concern for self and for others) and some styles differently, but the basic assumptions and principles behind are similar. The strength of the Rahim model also resides in the creation of the ROCI–II (a 28-item questionnaire) designed to measure the five styles of handling interpersonal conflict, with superior, subordinates, and peers.

3.1.2 Background for the Thomas's five conflict handling styles model.

Thomas starting from the original two-dimensional (task oriented and people oriented) five-factors grid for classifying the management styles suggested by Blake and Mouton (1964), developed a model of five conflict handling styles based on the two dimensions assertiveness and cooperativeness, by attempting to isolate those style onto a taxonomy that would generalise beyond the superior-subordinate relationship postulated in the Blake and Mouton's managerial grid (Thomas, 1992).

Thomas (1972) has suggested that an individual's conflict style is a behavioural orientation and general expectation about one's approach to conflict. This idea of conflict style does not preclude the individual from changing styles or enacting behaviours not typically associated with a particular style, but asserts that individuals choose (though often not consciously) a pattern of principles that guide them through episodes of conflict. These patterns of principles are translated into actions and reactions and become known as their "style" (Ruble & Thomas, 1976; Thomas, 1976; Thomas & Kilmann, 1978). Conflict management style is a disposition "general and consistent orientation toward the other party and the conflict issues, manifest in observable behaviours that form a pattern and share common characteristics over time" (Kuhn & Poole, 2000). Thomas asserts that we each have a preferred style when dealing with conflict, consisting of a collection of behaviours and intentions we use most frequently when facing conflicts that life present (our partner, co-worker, business partner, etc.). Within this framework the author tighter with Killman developed the KTI an instrument for measuring the disposition of individuals to each of the 5 styles (resulting in a predominant style, and less frequently used conflict modes). As the authors assert: "[everyone is] *capable of using all five conflict-handling modes; [we] cannot be characterized as having a single, rigid style of dealing with conflict. However, most people use some modes more readily than others, develop more skills in those modes, and therefore tend to rely on them more heavily. Many have a clear favourite. The conflict behaviours [we] use are the result of both [our] personal predispositions and the requirements of the situations in which [we] find [ourselves].*

These different modes toward a conflict (collaboration, competition, compromise, avoiding, and accommodation) depend on the intentions to satisfy personal concerns (assertiveness) and others' concerns (cooperativeness). These five modes have been differently interpreted by researchers as orientations, behaviours, or strategies. According

to what Thomas (1992) claims in his paper "Conflict and conflict management reflections and updates": *they* [modes] *are best described as intentions. More precisely, the strategic intention of a party in a conflict, what the party is attempting to accomplish in satisfying personal and others' goals… Accordingly the* [first] *dimensions of assertiveness and cooperativeness are phrased in intentional terms as attempting to satisfy own or others' concerns.* Thomas on the other hand empathises that the two-dimensional model is purely a classification scheme, a "taxonomy" of 5 conflict handling intention classified according to the two underlying dimension of intents, mentioned above. He claims that conversely other versions of the two-dimensional models draw the modes into dimensions (desires and values), other than intensions. According to Thomas this gives to these alternative models a casual nature, as to say that the two dimensions can explain and predict the occurrence of the five modes.

Going back to Thomas's classic paper (1976), he proposed two complementary models of conflict a process model and a structural model. The process model focuses on the sequence of events occurring within a conflict episode, and on the assumption that conflict behaviour is shaped by how these events are cognitively interpreted; in other words different ways of conceptualisations used by parties involved in a conflict encourage different handling-conflict modes. This cognitive perspective contrasts with the behaviourist approach taken by the social perspective in the late 1960s, early 1970, that viewed conflict as a direct response to objective characteristics of the other parties' behaviour, or of the situation. The process model involves five variables: frustration (interference that makes it difficult to satisfy a need), conceptualization (the way this is interpreted), behaviour, others' reactions (ways in which the parties act and react to the frustration in a way they considered appropriated), and outcome. These variables represent sequences of events or stages of a conflict episode. Later in 1992 Thomas added that the process model asserts that conflict intentions are determined jointly by rational economic thinking, normative thinking and emotions.

On the other hand, the structural model focuses on the underlying variables, more stable conditions or parameters which shape the conflict process: behavioural predispositions (styles), social pressure, incentive structures, rules and procedures.

Thomas in his structural model (1976) sustains that peoples responses' styles are hierarchically ordered, meaning that each individual has a dominant style, back-up style, a least preferred style, depending on personality.

Thomas and Killman developed the KIT that with the ROCI II developed by Rahim, are two of the most well-known self-report instrument for measuring conflict management styles. However studies on the TIK revealed weak to moderate and concurrent variability, little evidence on content validity, and failed to find external and predictive validity questionable predictive validity (Van de Vliert & Kabanoff, 1990). Rahim criticised directly the TKI validity and reliability and developed the ROCI II that has achieved high validity and reliability, therefore used for various management and intercultural communication studies (Morita, 2003).

3.1.3 Thomas: five conflict handling styles.

The model identified by the behavioural scientists Thomas and Kilmann (1970) take into consideration two intentions/dimensions of behaviour that can be used to define the 5 modes of dealing with conflicts: cooperativeness and assertiveness. The first describes the extent to which an individual attempts to satisfy one's own concerns; cooperativeness refers extent to which an individual attempts to satisfy other party's concerns). The 5 styles vary in their degrees of cooperativeness and assertiveness involved: competitive (Domination), Collaborative (Integration), Sharing (Compromise), Avoidant (Neglect), and accommodative (Appeasement). Although the authors argued that people typically have a preferred conflict resolution style, they claim that no conflict style is intrinsically right or wrong, but one or more styles could be inappropriate for a given situation, as for the model developed by Rahim. Figure 5 shows the joint outcome space is use by Thomas for analysing the five type of styles (Thomas 1976), illustrating the alternative created by the interactions between parties involved in the conflicting situations: fix-sum (competitive accommodative), zero-sum (sharing), and varying-sum outcomes (collaborative).
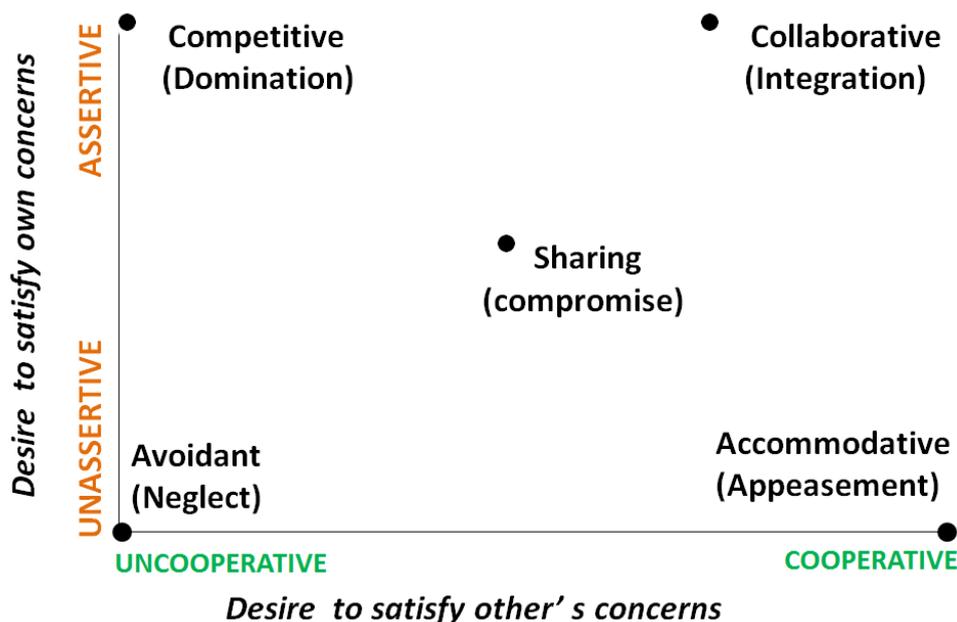

Fig. 5. Thomas's joint outcome space

Competitive and accommodative styles are representative of distributive bargaining situations in which the positions of the conflicting parties are mutually exclusive, and thus there is a competition for some limited resources or because of a perceived situation of scarcity (either-or; fix-sum outcome). Avoidant style, characterized by careless and negligent behaviours, represents a standoff or an impasse, a situation that cannot be resolved. The Sharing style, which is primarily based on compromise, allows for some degree of satisfaction for all parties involved (zero-sum situation). The Collaborative style,

with its resultant integrative behaviour, represents an open situation, also referred as a varying-sum outcome, where both parties may get satisfaction if the issue of conflict is not formulated in a distributive manner. The collaborative style requires explorations of alternatives, thus that all parties cooperate fully to satisfy their concerns with mutually beneficial outcomes. A brief description of the five conflict-handling styles is provided below.

People who tend towards a *competitive* style behave as aggressive, autocratic, confrontational, and intimidating. A competitive style is an attempt to gain power and to satisfy personal concerns at the other person's expense. It may be appropriate in case of an unpopular decision needs to be implemented, or it vital to make a quick decision, or it is important to let others understand how important an issue is to you (you stand up for your right). The biggest disadvantage of using this style is that relationships can be harmed beyond repair and can boost people's resentment and dissatisfaction.

People who tend towards an *accommodating* style tend to set aside personal needs in order to please others. Accommodators are unassertive and cooperative and may play the role of a martyr, complainer, or saboteur. They try to sustain the relationships at expense of asserting personal needs or ideas. It can be useful when it is more important to preserves relationships than the benefits could be obtained.

The *avoiding* style is characterized by deliberately ignoring or withdrawing from a conflict rather than facing it, and typified by delegating controversial decisions, accepting default decisions, and not wanting to hurt anyone's feelings. People using this style hope that the problem will resolve itself without personal involvement; or think that others are ready to take the responsibility of the issue. They may be perceived as not caring about personal and others. This style may be appropriate when it is need more time to think of how to act in a specific situation, time constraints demand a delay, confrontation will hurt a relationship, someone else is in a better position to solve the problem or there is little chance of satisfying personal needs. However, avoidance can be destructive if the others perceive that you don't care enough about the issue to get engaged.

People tending towards a *compromising* style are willing to sacrifice some of their personal goals while persuading others to give up part of theirs. This style helps to maintain the relationship and can take less time than collaboration. The solution to a problem might mean seeking a middle ground position or splitting the gains. It can be an easy way to get a partially satisfying solution that reduces new creative options. And finally the *collaborative* style views conflicts as problems to be solved and finding creative solutions that satisfy all the parties' concerns. People assert themselves while understand the views of others. This style fosters respect, trust, and builds relationships. This style is particularly useful when the solution need to bring together a variety of viewpoints; whne the issue involved worth more than a simple trade-off, or in case there have been previous conflicts in the group.

The definition of assertiveness we assume includes both high concern for self and high for others, while the definition of assertiveness adopted by Thomas can be also expression of a dominating style, because assertiveness in this model means attempt to satisfy personal concern, without taking into account the quality of the behaviours acted (dominating) in this

attempt. *The nature of assertion is that we can state a preference very strongly without insisting that other must see it in our way* (Dryden & Constantinou, 2004).

However the Thomas model it is very interesting from our perspective, as it highlights another important variable to be taken into consideration when we try to investigate, differentiate and understand the different styles of handling conflicts: cooperativeness. In other words this variable helps to identify more clearly the behaviours that characterise the different styles. Assertiveness is a communication style that pursuit of having personal preferences met, opinions voiced, emotions and believes honestly expressed, in an appropriate way: without being passive or aggressive, while respecting others boundaries, and accepting that all parties involved are all equal in worth.

Thomas and Kilmann also developed the Thomas-Kilmann Conflict Mode Instrument (TKI) which helps to identify which style people tend towards when conflicts arise.

The TKI consists of thirty pairs of statements where for each pair, the respondent have to choose either the A or B item (depicting one of the five styles).

TKI it is a self-assessment instrument easy to administer and interpret. It can be useful for identifying people's strengths and areas where improvement is needed when dealing with conflicting situations. Users can benefit of some interpretation materials helping to identify appropriate use of the styles and to become more comfortable with styles they are less familiar with. The KTI is available in English, French, and Spanish versions.

Although it has been shown that the instrument significantly controls the social desirability bias, some of the weakness seems to be related to the fact that assumes that users share similar cultural background. Moreover, it does not offer materials on which to reflect on the impact of culture on response to conflict in training settings. Trainers report frustration among users from minority backgrounds or not from the United States.

3.1.4 Background for the Rahim's five conflict handling styles model.

The two basic dimensions used by Rahim and Bonoma to differentiate the five styles are "concern for self" versus "concern for others" based on Thomas's (1976) work. Rhaim enriched this model highlighting that for conflicts to be managed most effectively, one style can be more appropriate than the other, based on the situation (Rahim & Bonoma, 1979; Thomas, 1992). Rahim in his book *Managing Conflict in Organisations* (1992) states the following: "*Organisational conflict must not necessarily be reduced, suppressed or eliminated, but managed to enhance individual, group and organisational effectiveness*". Moreover Rahim specifies that conflict can be classified on the basis of its sources or antecedent conditions into ten types: affective conflict, substantive conflict, conflict of interest, and conflict of values, goal-conflict, realistic versus non-realistic conflict, institutional versus non-institutionalized conflict, retributive conflict, misattributed conflict, and displaced conflict. Conflict can also be classified according to the levels of its origin, such as intrapersonal, interpersonal, intragroup, and intergroup. The former classification

of conflict shows that an analysis of conflict at different levels can be effective depending on the nature of the problems involved.

More specifically, Rahim classified organisational conflict as intrapersonal, interpersonal, intragroup, and intergroup can on the basis of levels at which the conflict occurs. Rahim described the four types of organisational conflict as follows:

1. Intrapersonal Conflict, also known as intra-individual or intra-psychic conflict, occurs when an organizational member is required to perform certain tasks and roles that do not match his or her expertise, interests, goals, and values.

2. Interpersonal conflict, also known as dyadic conflict, refers to conflict between two or more interacting individuals, as manifestation of incompatibility, disagreement or differences between the parties involved in a conflict. It can involve the same or different hierarchical levels or units (Rahim, 2011). Following different styles model of handling interpersonal conflict are discussed.

3. Intragroup Conflict, also known as intradepartmental conflict. It refers to conflict among members of a group or between two or more subgroups within a group regarding goals, tasks, procedures, and so on. It might also occur as a result of incompatibilities or disagreements between some or all members of a group and its leader

4. Intergroup Conflict, also known as interdepartmental conflict, refers to conflict between two or more units, divisions, departments or groups within an organization, regarding, tasks, resources, information, and so on (e.g. line and staff, production and marketing; labour and management.).

The styles of handling interpersonal conflict can be classified as integrating, obliging, dominating, avoiding, and compromising. One style can be more appropriate than the other, based on the situation: in a given situation one particular way of handling conflict may be more suitable then others, as they might reflect strategic durable intentions and not simply tactical episodic intentions.

Rahim and Bonoma have designed two different instruments for measuring the amount of intrapersonal, intragroup, and intergroup levels and the five styles of handling interpersonal conflict: the Rahim Organizational Conflict Inventory–I (ROCI-I) and the Rahim Organizational Conflict Inventory–II (ROCI-II). The ROCI–I is designed to measure the intrapersonal, intragroup, and intergroup independent dimensions of organizational conflict; while the ROCI-II is designed to measure the five independent dimensions of the styles of handling interpersonal conflict with superior, subordinates, and peers: integrating, dominating, avoiding, compromising, obliging.

3.1.5 Rahim: five conflict handling styles.

The Rahim's five conflict handling styles are described below (fig. 6).

The *Integrating* style, also known as Problem Solving, indicates high concern for self and others. It involves collaboration between the parties that are willing to reach a mutual and acceptable solution through openness, exchange of information, examination and

exploration of differences for arriving to a constructive solution that goes far beyond personal and limited visions of the problem.

Rahim highlights the two distinctive elements of this style suggested by Prein (Rhaim, 2011): 1) confrontation that is characterised by open communication, clarify misunderstanding, examining the underlying causes of conflicts; 2) and problem solving. Confrontation is considered as prerequisite of problem solving that implies the identification of appropriate solutions aiming to provide maximum and reciprocal satisfaction of concern of parties involved.

The *obliging* style, also known as accommodating indicates low concern for self and high concern for others. An obliging person neglects and sacrifices personal concern so to satisfy the concern of the other party. This style is associated with a non-confrontation element characterised by the attempt of minimising differences and emphasizing commonalities to satisfy the concern of the other party. As suggested by Rahim this style may take the form of selfless generosity, charity, or obedience to the party's order. An obliging person can be defined as a "conflict absorber" terms describing a reaction of low hostility or even friendliness to a perceived hostile act.

Dominating Style, also known as competing, indicates high concern for self and low concern for others. A dominating person stands up for own rights and ignore others' needs and expectation; try to defend personal positions that he believes being as correct and right. This is a win-lose style expression of a forcing behaviour in order to win one's position.

The *avoiding* style, also known as suppression, indicates low concern for self and others. Therefore an avoiding person fails to satisfy personal concern as well as the concern of the other party. It has been associated with withdrawal, buck-passing, sidestepping situations. As suggested by Rahim this style may take the form of postponing an issue until a better time, or simply withdrawing from a threatening situation. This style often reflect little concern toward the issues or parties involved in conflict, and the attitude to refuse or denying to acknowledge the existence of a conflict in public.

The compromising style indicates intermediate concern for self and others. The styles sees both parties involved in give and-take or sharing solutions, whereby both parties accept to give up something to make mutually acceptable decisions. Compromising style may involve splitting the difference, exchanging concession, or seeking a quick, middle-ground position. A compromising person or party gives up more than a dominating but less than an obliging person or party. Similarly a compromising person or party addresses an issue more openly than an avoiding person or party but does not explore alternative solutions as an integrating person or party.

Rahim suggested that would be possible to get more insights if using the taxonomy of game theory for reclassifying the five styles of handling interpersonal conflict: integrating style can be reclassified to a positive-sum on nonzero-sum style, compromising to a mixed style, and obliging, dominating, and avoiding to zero-sum or negative-sum. Although he indicated this possibility he warns on the risk of using the taxonomy "win" and "lose" used by the game theory for this reclassification. This may be misleading, as matter of fact, Rahim highlights that each of the five styles of handling interpersonal conflict may be

appropriate, depending on the situation, therefore considered as a situation dependent "winning style".
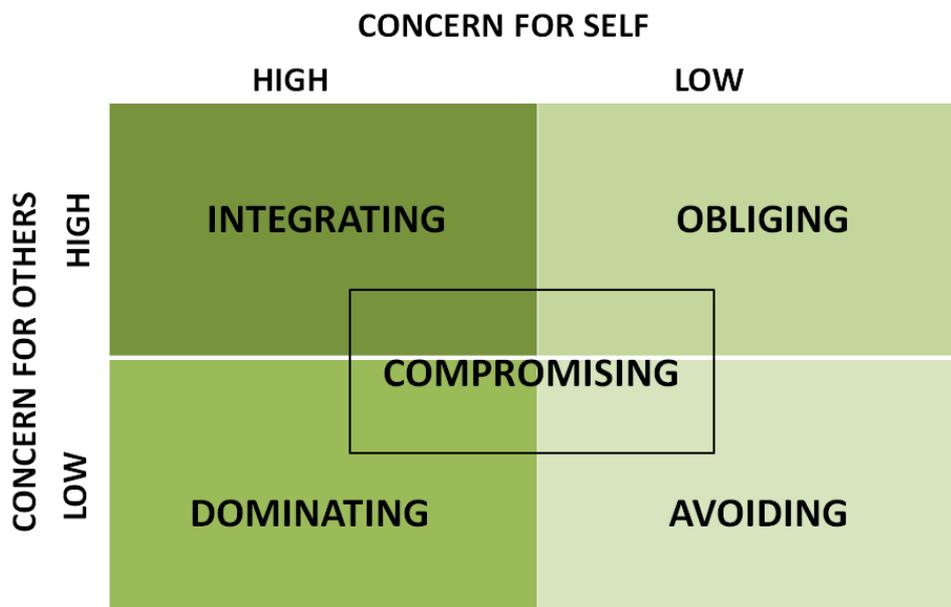

Fig. 6. Rahim and Bonoma's two-dimensional model of five styles of handling interpersonal conflict. Adapted from Rahim, A., & Bonoma, T. V. (1979). Managing organizational conflict: A model diagnosis and intervention. *Psychological Reports, 44,* 1327.

3.1.6 Advantages and disadvantages of using the five styles in different situations

Rahim insists on the value of training on how using the different styles of handling conflict to deal with various situations effectively.

For example the *integrating* style can be useful for effectively dealing with conflicts involving complex problems or strategic issues, and when decisions cannot be taken by a single individual thus the value of the differences (skills, information, experience) of both parties involved can be useful to define the problem, and identify effective alternative solutions. This style can be unappropriated when immediate action is required, and there is no time for problem solving, when the task or problem to solve is simple. Moreover the style can be not effective when the parties are unconcerned about outcomes or when they have not experience of problem solving.

The *obliging* style can be useful when the party is not familiar with the issues involved in a conflict. It may be useful when the party is unconcerned about outcomes, and for preserving a relationship that might be more important that the immediate outcomes, yet as a strategy when a party is willing to give up something with the hope of getting some benefits in the future. This style is not appropriate if the issue involved in a conflict is important to the party, and when there is a belief that the other party is wrong or acting unethically.

Yet, the *dominating* style may useful when an immediate action is needed, or when an unfavourable decision taken by one of the parties involved in a conflict may be harmful to

this party itself. Yet it might be used by supervisors dealing with subordinates who have not technical expertise to make decisions, and when the implementation of unpopular courses of action is needed. This style is unappropriated the issues involved in conflict are complex and there is enough time to make a good decision, by using problem solving, and when the issues are not important to the party. If used by parties equally powerful it may lead to impasse.

While, avoiding style may be appropriate when confrontation with other parties although the negative effect on the relationships between the parties exceeds benefits the resolution of conflict. It may be also useful when the task or problem to solve is trivial or simple. The style may not be appropriate to use when the issue involved in a conflict is important to a party, when party it is given responsibility to make decisions, or when prompt action is required.

The *compromising* style is advantageous when the goals of the conflicting parties are mutually exclusive, and when an impasse occurs between parties equally powerful (e.g., labour and management during the negotiation process). It can be used when it is difficult to reach a consensus, parties need a temporary solution to a complex problem, conflicts are protracted for long time, or other styles have been used and found to be not effective in resolving the issues. This style is unappropriated the issues involved in conflict are complex and there is enough time to make a good decision, by using problem solving. Often the use of compromising style for dealing with complex issues fails to reach durable long-term solutions. This style may not be appropriate when the conflict involves dealing with values.

3.1.7 Integrative and distributive dimensions in Rahim's styles model

Prein (1976) and Thomas (1976) suggested that further insights into the five styles of handling interpersonal conflict may be obtained by organizing them according to the integrative (problem solving) and distributive dimensions (bargain) of labor–management bargaining suggested by Walton and McKersie (1965).

The integrative dimension-Problem solving is calculated by subtracting the avoiding style score from the integrating styles score, while the distributive dimension is calculated by subtracting the Dominating style form the Obliging style. A problem solving style represents a party's pursuit of own and others' concerns, whereas the bargaining style represents a party's pursuit of own or others' concerns. A High–High use of the problem solving style indicates attempts to increase the satisfaction of concerns of both parties by finding unique solutions to the problems acceptable to them. A Low–Low use of this style indicates reduction of satisfaction of the concerns of both parties as a result of their failure to confront and solve their problems. A High–Low use of the bargaining style indicates attempts to obtain high satisfaction of concerns of self and providing low satisfaction of concerns of others. A Low–High use of this style indicates attempts to obtain the opposite (Rahim, Antonioni & Psenicka, 2001). Compromising is the point of intersection of the two dimensions, that is, a middle ground position where a party has an intermediate level of concerns for own and others. In other words, the integrative dimension represents the

amount of satisfaction (high-low) of concerns received by both parties (self and others). Within this dimension, the integrating style attempts to increase the satisfaction of the concerns of both parties by finding solutions to the problems mutually acceptable. The avoiding style leads instead to the reduction of satisfaction of the concerns of both parties and result in the failure to solve their problems.

The distributive dimension represents the amount of satisfaction (high and low) of the concerns received by only one of the parties (self or others). Within this dimension the dominating style attempts to obtain high satisfaction of concerns for self (and low for others). The obliging style attempts to obtain low satisfaction of concerns for self (and high satisfaction of concerns for others).   The compromising style represents the point of intersection of the two dimensions, that is, which represents an intermediate position where both parties receive a moderate level of satisfaction of their concerns from the resolution of their conflicts (See fig. 7).
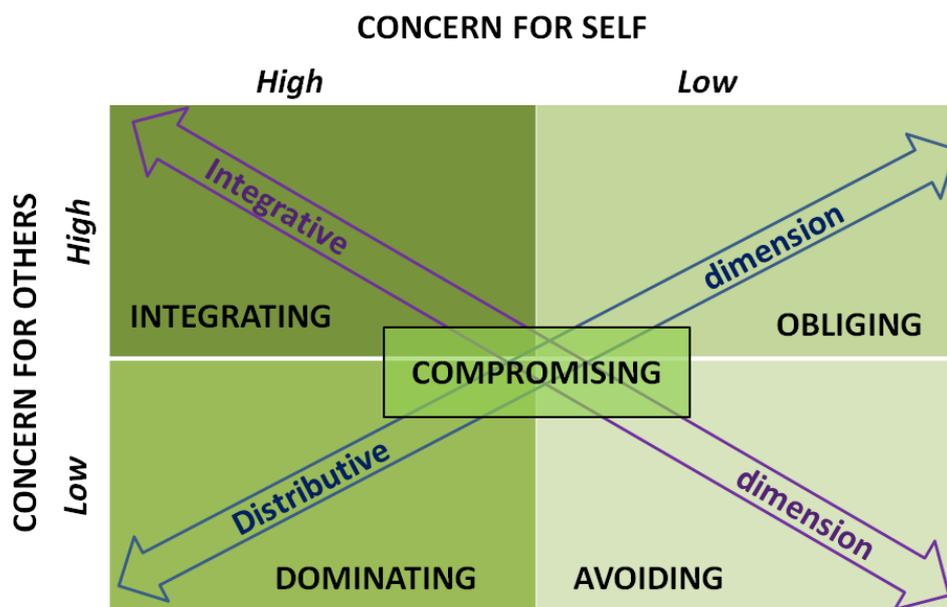

Fig. 7. Integrative and distributive dimensions of the five styles of handling interpersonal conflict
Adapted from Rahim, A.(2011). *Managing conflict in organisations*.

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