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Why do business losses cause conflict?

Abstract

Evidence suggests that conflicts between contracting parties are more prone to occur when a party has suffered a significant loss. It is argued that the phenomenon is difficult to understand within conventional contract theory, which assumes full rationality, while behavioral theories based on the concepts of motivated reasoning and reciprocity provide interesting explanations. Thus, losses can trigger motivated, self-serving perceptions and beliefs, which in turn are likely to induce negative reciprocity as well as counter-productive acts aimed at bolstering self-image. These explanations are demonstrated to be well supported by experiments.

1. Introduction

Contract managers claim that parties are more likely to become involved in conflict, i.e. to enter into a period of less than efficient cooperation, after having suffered

economic losses. For example, in an interview concerning a large construction project¹ an experienced contract manager² claimed that contractors often *'attempt to recuperate losses by raising more unwarranted claims'*.

Unwarranted claims may then undermine the client's trust and so lead to a deterioration of the relationship and sometimes to litigation.

That losses can engender lack of cooperation and conflicts is an element of several case studies and surveys (e.g. Kadefors, (2005) and Zhang et. al (2019)), and has also been confirmed in experiments (e.g. Feldman, Schurr, & Teichman (2013), and Fehr, Hart and Zehnder (2011)). Hence, this article proceeds from the understanding that losses can indeed lead to conflict, and inquires what might explain this conflict-after-loss phenomenon. Specifically, the article inquires whether it can be explained within conventional contract theory or whether behavioral theories are needed. In this respect, the article is involved in the methodological debate concerning the proper role of behavioral assumptions in economics.

At first sight, it may seem straightforward to explain the phenomenon within conventional contract theory (examples of which are Shavell (1984), Holmstrom (1979), and Hart and Moore (1988)), in which it is assumed that contracting parties are rational and materialistic. This means that their perceptions are not biased by emotion and that they are concerned with their own material pay-off rather than with fairness or other moral values. Under these assumptions, it becomes difficult to explain the phenomenon because losses that belong in the past should not in themselves change the relative pay-offs from cooperative and uncooperative acts.

¹ A case study about the building of the Øresund bridge connecting Denmark and Sweden.

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These pay-offs depend on anticipated future gains and losses and not on already incurred losses. In the context of the example above, if under conventional assumptions it were not in the interest of the contractor to present an unwarranted claim in the absence of a loss, it would generally speaking remain so also after a loss. Either the risk of being caught presenting an unwarranted claim is worth its gain, or it is not – this comparison should not be affected by the suffering of a loss.

By contrast, behavioral theories can provide an explanation. For instance, motivated (i.e. self-serving) reasoning can be triggered by the occurrence of a loss and can then combine with negative reciprocity or self-image defenses to yield conflict. However, before turning to these behavioral explanations, we first consider more carefully whether one can understand conflict-after-loss without behavioral assumptions.

2. Can losses cause conflict under conventional contract theory?

In conventional contract theory parties are assumed to be rational (e.g. in the sense of perceiving the world without bias caused by emotion), materialistic (interested ultimately in consumptions of goods and not concerned with fairness or identity) and self-seeking (not concerned with others' pay-offs). Despite the difficulty alluded to above, it turns out that four explanations can in fact be offered under these assumptions for why losses sometimes cause conflict.

The first such explanation rests on the notion that a party who suffers a loss may be threatened with bankruptcy or some other sanction, which may bring the party to risk conflict. By risking conflict, e.g. by raising unwarranted claims, the party may obtain some possibility of avoiding bankruptcy or the sanction. Of course, if the gamble does not succeed and cooperation breaks down, the loss will be larger, but

the size of the loss may be of no consequence in a state of bankruptcy or when one is exposed to some fixed sanction.

However, this explanation seems relevant only in some circumstances. More often, the risk of bankruptcy seems to speak in favor of avoiding potential conflict, and the same would seem to apply to most sanctions that one may suffer, as the sanction tends to increase with the size of the loss that one has caused. It is generally efficient for sanctions to be so devised.

The second conventional explanation relies on the concept of the breach of an implicit contract. To exemplify the idea, the parties to a construction contract may have agreed to a schedule of liquidated damages to be paid in case of delays relative to agreed-upon milestones. However, such damages are far from always enforced, since the client may not want to take what may be perceived as a hostile action of pressing a claim for damages when the contractor is not at fault. There is often an implicit understanding (an implicit contract) that the client does not enforce damages unless the contractor can be seen as having caused the delay through negligence. Such an implicit contract may establish an efficient allocation of risk and may also spur the contractor to take appropriate acts to avoid delay (as otherwise the client will in fact enforce the damages). Thus, if infinitely repeated, the efficient outcome may indeed be a Nash-equilibrium, i.e. it may be sustained by strategies on the part of the contracting parties that are rational in the sense that they are best-responses to each other.³

³ The Nash-equilibrium entails that one party acts in an optimal manner given the act by the other party, and vice-versa. This explanation rests on the parties being sufficiently patient such that they are not tempted to make a short-run gain at the expense of long-run cooperation.

This notion of an efficient, implicit contract leads to an understanding of what breach of an implicit contract may mean, as inefficient outcomes in which the parties do not cooperate may also obtain - the infinitely repeated game has a multitude of equilibria many of which are inefficient. Hence, according to the theory of implicit (or self-enforcing) contracts, a loss may well cause a period in which the parties act uncooperatively because they perceive that the other has defected from the efficient path.

Yet, the problem is that there exist many equilibria in this theory, and that it is hard to select among them. In this sense, the main lesson from the theory of repeated games is that cooperation can under certain conditions be maintained due to the repeated nature of the game, whereas the theory does not teach us much about when conflicts do occur, i.e. when the inefficient equilibria will obtain.

Put differently, the theory of repeated games does not explain how past losses can induce conflict, because it does not explain what determines the parties' underlying expectations; these are under-determined by the theory. This is where psychological theory may help us to in a rough sense select among the possible equilibria.⁴

A third theory that can explain the breakdown of the implicit contract is offered by Masten (1988).⁵ In his theory, inspired by transaction cost theory (Williamson (1985)), a rise in the costs of performance of the contract may lead one party to force a renegotiation of the contract because the contract has become unprofitable to that party. She may perform perfunctorily (according to the letter rather than the

⁴ There is also a more theoretical objection to the theory, namely that it relies on the cooperation not coming to an end at a definite point in time. The reason that the number of periods must be infinite or unknown is that cooperation otherwise unravels due to backward induction: the parties can predict that cooperation will suffer as cooperation comes close to an end, as there can be no retaliation at the end of the contract.

⁵ See also Hart (2009), who formalizes the theory within the contracts-as-reference-points framework.

spirit of the contract, i.e. in breach of the implicit contract) in order to induce the other to renegotiate terms that have become too one-sided. According to Masten, forcing renegotiation can be done without contract breach, but sometimes even contract breach can be preferable to the continuation of the contract, as when losses due to breach of contract are hard to measure and damages are therefore lower than the actual losses arising from non-performance.

However, this theory assumes that the adverse circumstances lower the future payoffs from the contract; conflict arises because the contract has become unprofitable looking forward. But our aim is to explain why losses that have already been incurred may cause conflict.

Finally, it may be that conflict arises about who is to bear the loss itself. Such conflict may e.g. take the form of prolonged bargaining and ultimately litigation.

The main candidate for explaining prolonged bargaining conventionally is the theory of asymmetry of information (Kennan and Wilson (1990), Sullivan (2016), Spier (2007), Wickelgreen (2013)). The idea is that one may be reluctant to initially make a realistic offer as this may lead the other to infer that one's bargaining position is weak. This logic may lead the parties into lengthy bargaining before they settle, as they over time gradually reveal their true preferences by the extent to which they are willing to postpone settlement.

While this theory has received empirical support (e.g. by Sullivan (2016)) and cannot at all be dismissed, two short-comings are worth noting. First, experimental evidence indicates that the theory misses essential aspects of bargaining behavior. Babcock (2013) summarizes this evidence as follows (p. 361): *“Specifically, we find that the empirical evidence consistently indicates that individuals, including*

experienced professionals, routinely conflate what they want to happen with what will actually happen.’’

Second, the theory of asymmetric information has difficulty explaining why parties sometimes end up in court. If the court considers the evidence in a predictable manner, the parties could have avoided the expenses of litigation by presenting the evidence to each other before going to trial (Shavell (1989)). As the evidence will come forth anyway, it would be better to reveal it before trial. If the parties do reveal (hard) evidence in an optimal manner to avoid litigation, litigation can only be explained by the parties holding different expectations about how the judge is likely to apply vague standards or otherwise interpret the law. Naturally, such different expectations may occur as soon as there is some stochastic element in the formation of such expectations, but here again behavioral theories that account for biased beliefs may yield better predictions.

We conclude that conventional theory has difficulty explaining the conflict-after-loss phenomenon, especially when the conflict is not about who should bear the loss itself. The theory of implicit contracts can find room for such conflict but does not explain when it occurs.

We now consider whether behavioral theories can provide a better understanding.

3. Explaining conflict from behavioral assumptions

I will begin by exposing three fundamental behavioral theories, namely prospect theory (Kahneman and Tversky (2013)), the theory of reciprocity (Rabin (1993a)), and the theory of motivated reasoning (e.g. Benabou and Tirole (2016)). I will

expose not only their main claims but also some of the experimental evidence supporting them.

While prospect theory provides an explanation of its own, the other two are foundational for two theories that can explain the phenomenon: the theory of contracts as reference points (Hart and Moore (2008)), and the theory of self-image concerns as relating to contract negotiations (Benabou and Tirole (2009)). These theories will be addressed after their foundations have been introduced.

3.1. Prospect theory

Prospect theory (Kahneman and Tversky (1979)) suggests that people may run the risk of conflict after suffering a loss, as they attach primary importance to regaining the loss. The loss incurred in relation to the reference point will loom larger than a gain, more so than can be explained by risk aversion. Moreover, the theory maintains that sensitivity to losses (and to gains) decreases marginally with the size of the change. It is this decreasing sensitivity to large losses (modified, however, by the possibility that a large loss may necessitate a major change e.g. in lifestyle), which according to prospect theory can account for the observation that behavior is often risk seeking in the domain of losses.⁶ Consider e.g. how subjects in an experiment by Kahneman and Tversky (1979:282) responded to a choice between the prospect of losing 6000 with probability $\frac{1}{4}$, and the prospect of either losing 4000 with probability $\frac{1}{4}$ or losing 2000 with probability $\frac{1}{4}$. Both prospects yield an expected loss of 1500, but risk averse agents should prefer the lower losses of either

⁶ Conceivably, the declining sensitivity may perhaps be interpreted as the mind shying away from contemplating very bad outcomes- which may be interpreted as motivated reasoning to be described below.

2000 or 4000 over the larger loss of 6000. However, of 74 participants 70% preferred the lottery involving the large loss, revealing a lack of concern for the large loss and a propensity to choose that option which offers the greater chance of avoiding a loss altogether.

Applied to the context of contracts, this theory would predict that a party who has suffered a loss relative to his or her reference point may seek to regain the loss by an action that risks an even greater loss. Hence, the party may e.g. raise unwarranted claims to recuperate a loss, or in other ways act opportunistically, even if doing so risks destroying a good relationship.

While there is, as mentioned, experimental evidence that supports this theory, the empirical evidence from real data seems to have been more difficult to establish, in part because reference points are hard to determine outside the laboratory. For an overview of some of the empirical work, see Barberis (2013).

We now turn to the second of the behavioral theories: the theory of reciprocity.

3.2. The theory of reciprocity

The theory of reciprocity as developed by Rabin (1993b) is based on three tenets: First, that people compare other people's acts in terms of notions of fairness. If person A deems that another person B has *intentionally* acted unfairly towards A, compared to some notion of fairness, B will want to retaliate, i.e. will derive utility from acting in a manner that inflicts a loss on A. Thus, if retaliation is not more costly than the utility derived from retaliation, B will retaliate. Conversely, if B deems A's

act to be generous, B will want to confer a benefit on A if doing so is not more costly than the utility derived from a reciprocal act.

The theory involves beliefs about beliefs in the sense that each party tries to understand the motives of the other party, which requires an understanding of how the other party perceives the situation. So A forms beliefs about B's beliefs, and vice-versa. As shown by Rabin (1993), such expectations may be self-fulfilling: if A believes B acts with a negative intent, A will sanction B, and B will respond negatively to A's sanction thus confirming A's initial belief that B wishes to harm A.

The empirical evidence concerning positive and negative reciprocity is too large to survey here. Some references are Fehr and Schmidt (2001) and Dohmen et al. (2009).

The theory may offer an understanding of when conflicts occur especially if we can predict when people feel that others are violating norms of fairness. For such prediction the theory of motivated beliefs and reasoning becomes relevant.

3.3. The theory of motivated beliefs and reasoning

The main idea behind the theory of motivated beliefs and reasoning, which has been incorporated into economic theory in recent years, e.g. Benabou and Tirole (2009), (2016), and Caplin and Leahy (2019), is that people hold beliefs and process information in a way that furthers their well-being. The central claim is that people discount or even ignore information that does not support their desired beliefs, while paying much fuller attention to information that supports it. Also, when

people do pay attention to undesirable information, it is claimed that they more easily forget it, while they more easily retain desirable information.

In one line of the literature beliefs concern the future, in which case people may prefer to hold an optimistic view, either because this enhances anticipatory utility, i.e. lowers fear and anxiety and induces hopefulness, or because being optimistic has instrumental value. Instrumental value can arise when an optimistic belief motivates effort or inspires others.

Among such studies showing that beliefs are affected by interest are Miljovic et al (2010). Subjects predicted events both before and after being told what their stake in the event was. When told that they would obtain a low pay-off in a given event, they lowered their prediction of the likelihood of that event. Also, in one experiment by Kunda (1990), subjects evaluated the credibility of a (fake) scientific study linking coffee consumption and breast cancer. Women who happened to be heavy coffee drinkers were especially critical of the study.

Alloy and Abramson (1979) and Korn (2014) argue that over-optimism and biased updating of beliefs is seen in most non-depressed subjects while objective beliefs and correct updating is seen primarily in depressed subjects.

Konow (2000) explores motivated reasoning as a response to cognitive dissonance, and shows how cognitive dissonance affects both beliefs and acts. Essentially, when a person holds cognitions (desires, beliefs, opinions, attitudes, or pieces of knowledge) that are inconsistent, these create unease within the subject, which leads the subject to lower the tension through a modification both of the cognitions and of the subject's acts. Konow examines the dictator game in which a subject may choose the degree of sharing of a sum of money with another subject. The dictator

may hold the social norm that one should be rewarded in proportion to how much one has contributed to the creation of the sum being distributed, but Konow shows how the dictator is likely to modify this fairness principle if it serves her interests. The dictator adjusts in fact on two margins: by modifying her fairness belief but also by respecting it to some extent in action, so as to lower the tension between the fairness notion and the actual act.

Mazar et al. (2008) is one notable experiment that supports Konow's theory.

Similar stakes-dependent acts occur in the context of deception. The economic theory of when people choose to lie or deceive others (Lundquist et al. (2009), Ellingsen et al. (2009), Gneezy (2005)) stresses that they are more likely to do so when more is at stake for them. Lying comes at a cost for most people, but this cost is rarely infinite, and may be manipulated through 'moral wiggling' (Dana et al. (2007)), i.e. through the seeking of excuses, and so people may lie when the benefit outweighs the cost. This theory might explain why one party acts opportunistically after having suffered a loss, if the gain from lying has increased.

Moreover, one party may feel justified in lying if he perceives that the other has acted opportunistically. Thus, Ellingsen et al. (2009:252–76) show that people lie more when the other party has defected in a previous round of a prisoner's dilemma game. Naturally, it must be the case that if the other's act is perceived in a biased manner, lying becomes a more likely consequence of a bad outcome.

In another line of the literature on motivated reasoning, beliefs involve a view of one-self (one's qualities, such as one's ability or moral character) or of the world. Here, positive views may yield direct or instrumental utility: It yields direct utility to hold positive views of one-self, i.e. to behold a positive self-image (identity). Also, it

may alleviate fears and induce meaning to hold positive views of the world.⁷

Instrumentally, positive self-beliefs, such as a belief in one own's abilities, may induce greater effort, which may otherwise be hampered e.g. by momentary temptations. Or the positive self-belief may be visible to others and thereby increase their confidence in one's abilities. The indirect or instrumental value of positive self-beliefs may help explain why the tendency has survived Darwinian selection.

The evidence of such distorted self-beliefs and reasoning is pervasive. For instance, Eil and Rao (2011) write:

In settings in which judgment is over a quantity of intrinsic importance to the individual, such as one's intelligence, excessive confidence appears to be the norm (Alicke and Govorun, 2005; Moore and Healy, 2008; Barber and Odean, 2001; Cross, 2006). The interaction between preferences and inference mistakes has economic consequences. The most important decisions are precisely the ones for which agents care most about the underlying state. Prominent examples include decisions concerning human capital formation, consumption/savings decisions, market entry and exit, asset trading and mate selection.

Eli and Rao show that subjects ignore or discount bad news about their traits while over-interpreting good news. In their experiments, subjects receive information about how they rank relatively to another subject in terms of intelligence or attractiveness. The authors summarize as follows:

⁷ There may also be negative views that induce utility; the point here is not that beliefs are always positive but that there is a tendency to twist beliefs to suit psychological or instrumental needs.

Our primary finding is that subjects incorporated favorable news into their existing beliefs in a fundamentally different manner than unfavorable news.. We call this finding the good news-bad news effect.

They find that subjects apply nearly correct updating of beliefs when news are good, but heavily discount bad news. This biased perception of news concerning self leads to biased self-assessments. Miljovic et al. (2010:228) mention the

` finding that most people rate themselves as superior on virtually any desirable characteristic (Brown & Dutton 1995 ; Dunning & Hayes 1996). For example, 94 per cent of university professors rate themselves as above average in professional accomplishment relative to their peers (Gilovich 1991).´

The fact that the desire to think of one-self in positive terms biases perception and reasoning would lead to the prediction that people are likely to blame others rather than themselves for things that go wrong. Indeed, biased perception seems likely to be part of the blame-attribution process. As noted by Furlong and Young (1996), being blamed may disrupt a person's self-image (sense of personhood), which may lead the person to counter-attack by blaming the blamer, resulting in what has been termed the *blame game*. This game has been described by Malle et al. (2014) as follows (p.174):

At its core it describes the activity of assigning blame, finding fault after a negative event has been discovered; but it clearly is an undesirable variant of blame: "the game itself is blameworthy" (Robbins, 2007, p. 140)...The undesirable nature of the

game is that its players consistently accuse others of wrongdoing while deflecting or denying their own wrongdoing (Furlong & Young, 1996; Knobloch-Westerwick & Taylor, 2008).

To summarize: motivated reasoning may in various ways lead to wrong attributions which in combination with reciprocal preferences or self-image concerns can lead to conflicts that (as in the blame game) prevent the parties from adapting constructively to adverse circumstances (Furlong and Young (1996)).

In the following, some of the evidence of motivated reasoning related particularly to bargaining and contracts will be reviewed. I will mention the evidence concerning bargaining impasse by Babcock et al (1995), and Babcock and Loewenstein (1997), and the evidence concerning biased interpretations of contracts and morality by Feldman, Schur and Teichman (2013).

Babcock et al (1995) ask pairs of subjects to read the material from a traffic court case before answering questions about what others will consider to be the fair outcome and how the judge will rule in the case, and before attempting to settle the case. In one run of the experiment, the parties are told who will be the defendant and who will be the plaintiff before reading the details of the case. In another run, they are told this after having read the case. Their fairness views and their ability to settle without delay is significantly affected by when they know their role, suggesting that they perceive the material in a biased manner when they know their interests.

Babcock and Loewenstein (1997) rely on real rather than experimental data to explore the importance for bargaining impasse of motivated reasoning. They ask unions and school boards who are engaged in negotiations on teacher's salaries,

about which other districts are comparable to their own when it comes to the determinants of teacher's salaries. The districts which unions consider to be comparable have on average higher salaries than the districts which school boards find comparable. Moreover, in those districts where the discrepancy is higher, there have historically also been more strikes.

In a series of experiments Feldman, Schurr and Teichman demonstrate how reference points affect moral judgments, contract interpretation, and acts involving ethics. They draw on the notion of reference points, which determine whether the subjects are in a loss frame or a gain frame. For example, if subjects are told that they must answer twenty questions and each correct answer yields them 1 unit⁸, the reference point is zero correct answers, and they will perceive each correct answer as a gain relative to that reference point. If, on the other hand, subjects are told that they will receive 20 units as a starting point, but for each incorrect answer 1 unit will be subtracted, they will be in loss frame relative to the earning of 20 units, which constitutes a reference point. As mentioned, prospect theory (Kahneman and Tversky (1979)) claims that reference points can affect behavior, because losses and gains are measured in relation to the reference point, and losses loom larger than gains.

What Feldman, Schurr and Teichman demonstrate is that the reference point can affect moral judgments and moral acts, including how subjects interpret vague contract terms. A loss frame induces less ethical considerations and less cooperative behavior. For instance, the subjects become more inclined to breach a contract, and they interpret the contract in a more self-serving manner, when they understand

⁸ In the experiments the unit was shekel, the Israeli currency.

their situation as being in the domain of losses. Also, subjects interpret the concept 'reasonable' more self-servingly in the loss-domain.

These findings are consistent with a body of work in social psychology about how reference points and loss aversion affect ethical behavior. Kern and Chugh (2009) summarize the literature as follows:

Newberry, Reckers, and Wyndelts (1993) showed that professional tax preparers who were trying to keep a client were more likely to sign a return with a large deduction related to an ambiguous tax issue than were those trying to win a new client. Heath, Larrick, and Wu (1999) showed that goals serve as reference points, and Schweitzer, Ordonez, and Douma (2004) found that participants who fell just short of an unmet goal were the least ethical, as compared with participants who met a goal or fell far short of the goal. Other work has explored related effects in sales (Kellaris, Boyle, & Dahlstrom, 1994) and moral choice (Petrinovich & O'Neill, 1996). The collective implication of these experiments is that a loss frame will prompt more unethical behavior than a gain frame.

These findings can perhaps be seen as instances of motivated reasoning, more precisely as stakes-dependent beliefs (Benabou and Tirole (2016)). When subjects are in the loss-domain they perceive the stakes as higher, simply because losses loom larger than gains, and when much can be gained by adjusting a belief (e.g. of the ethical nature of an act), beliefs are more readily adapted, as shown by Konow.

We have so far considered three behavioral theories (prospect theory, the theory of reciprocity and the theory of motivated reasoning) including some experimental and empirical evidence in their support. We now turn to models within contract theory

that, drawing on the theories of reciprocity and motivated reasoning, can explain conflict-after-loss. The first model, contracts as reference points, combine the two theories; the second involves self-image in combination with motivated reasoning.

3.4. Contracts as reference points

In Rabin's above-mentioned model of reciprocity, there is no attempt to derive what people consider to be fair as this notion is not central to the idea of reciprocity itself - the model is robust to various specifications. However, to apply the theory in the context of contracts, one must include some notion of fairness. The theory of contracts as reference points, introduced by Hart and Moore (2008), adopts the notion of reference points (Kahneman et al. (1986)). According to this notion, people judge what is fair by comparison with a reference transaction, the legitimacy of which tends to be taken for granted. Hart and Moore views the reference transaction as derived (at least in part) from the contract. Deviations from the expectations or interpretations *created by the contract* are considered by the parties to be unfair.⁹ If, for instance, the contract stipulates a range of possible outcomes, as when it is left to the discretion of one party to reward another, each party will interpret such possibilities in a self-serving manner and expect an outcome which benefits him or her. Here, Hart and Moore draw on the theory of biased perception of fairness, a form of motivated reasoning, and they may be said to insert the resulting fairness notions into Rabin's theory of reciprocity. A contracting party is

⁹ Hart and Moore also consider the possibility that fairness is derived from norms outside the contract; hence the theory does not hinge on the notion that it is the contract alone that forms the fairness point. In this sense the theory of contracts as reference points is broader than a theory of contracts as reference points, although it does point to the role of the contract in shaping expectations or senses of entitlement.

likely to retaliate by acting uncooperatively (by e.g. shirking or delivering only perfunctory performance) when the party receives less under the contract than that to which he feels entitled.

This contracts-as-reference point theory can explain conflicts arising after a loss as a result of divergent and self-serving expectations of what is a fair adaptation to the loss. Both parties are likely to interpret the contract or the acts performed under the contract in a self-serving manner. For instance, if the client enforces liquidated damages when the contractor has acted negligently, the parties are likely to disagree about what negligence means in the given context, and so disagreement and shading might follow. By assuming self-serving fairness assessments and reciprocity preferences, the theory can explain why expectations are hard to coordinate with regard to the allocation of a loss.

Naturally, the theory can be combined with the notion advanced by Feldman et al (2013) that decision makers are more likely to act in a self-serving manner when they are in the domain of losses; this may explain how a loss can induce conflict over other issues than the loss.

The theory might be thought to suggest a simple remedy: the parties can communicate their expectations of how to handle change and thereby avoid discordant expectations, aggrievement and conflict. Indeed, the potential effectiveness of communication, especially open communication (chat), is demonstrated in Charness and Ellman (2014).

However, the effectiveness of communication may be context-dependent. For instance, for communication to be effective parties must be able to identify future needs for adaptations and to describe the ways in which they expect complex

adaptations to be made. Moreover, communication may be used for influence activities as argued by Fehr, Hart and Zehnder in a not-yet-published working paper, and so it may be rational for one party to not allow communication.

The contract-as-reference point approach has received considerable experimental support. Fehr, Hart and Zehnder (2008) and Fehr et al. (2014) show experimentally that when the parties have chosen a flexible contract in which the parties are supposed to adapt terms to new circumstances, disagreement about what constitutes a fair or correct adaptation is a source of conflict. In these experiments, parties do retaliate even when retaliation is costly, when they perceive that the other adapts to changed circumstances (typically a cost increase) in an unfair or uncharitable manner. Other experimental evidence includes Bartling and Schmidt (2015) and of course the already mentioned studies by Feldman et al.

As for empirical evidence that conflicts in contract can stem from divergent fairness views about how to share a loss, there exist numerous case and survey studies on the cause of conflict in contracts (e.g. Friedberg and Neuville (1999), Kadefors (2005), Kern et. al. (2002), Li and Cheung (2019), and Weber and Göbel (2010) to mention only a few). For instance, based on cases Kadefors (2005) writes that:

“.. contractor losses may lead clients to expect opportunism and become less collaborative, which can actually reduce the opportunities for contractors to negotiate favourable deals.”

This finding of course suggests a further mechanism by which the conflict may arise: the client may expect opportunism after the contractor's loss, and this distrust may affect the climate of negotiations.

3.5 Self-image and the breakdown of bargaining

The idea of motivated reasoning concerning self-image has also been applied specifically to the setting of contracts. For instance, Benabou and Tirole (2009) provide a model in which the strategic management of self-beliefs, i.e. self-signaling, leads to bargaining impasse. The model is based on the two assumptions that people derive a benefit from a positive self-image, and that they derive their self-image in part from their own acts (self-signaling). How they act in a situation of conflict provides hard evidence by which their future self will judge its own worth. The future self will derive information about what caused the conflict, e.g. whether the person was at fault or acted incompetently. For example a partnership may have to be revised when a partner turns out to be less productive than expected. The partner may not acknowledge this, and so may rather dissolve the partnership than agree to a revision of the partnership's terms, although such revision might objectively be better for him than dissolution. In this example, the partner may take an uncompromising stance, for instance by holding on to the view that he acted competently and that the other is entirely unreasonable. The partner may do so sensing that this interpretation will bolster his self-image in the future.

4. Conclusion

The article asks why losses can lead to conflict, and whether the explanation can be found within conventional contract theory or whether behavioral assumptions are required.

The main finding is that in particular two behavioral theories provide us with a understanding of the conflict-after-loss phenomenon: the theory of motivated reasoning and the theory of reciprocity. As for motivated reasoning, i.e. the tendency for people to discard and re-interpret unpleasant information, there is much evidence to suggest that the ability of the human mind to absorb unpleasant information is limited, and that the mind re-interprets such information in a manner that can be counterproductive. Motivated reasoning, conscious or unconscious, leads to three main channels by which a loss may cause conflict. First, it may be that the loss itself is erroneously attributed to the other party; causation or fault may be attributed in a biased manner or the contract's provisions may be interpreted in a biased manner. This is a basic assumptions of the contracts-as-reference points theory by Hart and Moore. Second, the loss may bring about a loss frame of mind in which other issues, such as how to interpret vague standards, will be viewed in a biased manner. This is the theory tested experimentally by Feldman et al. And third, the loss may constitute a threat to one's ego (identity) and may spur ego-defenses such as blaming the other rather than one-self. This is the theory advanced by Benabou and Tirole (2009).

In all three instances, the biased perceptions will be especially likely to lead to conflict when preferences are reciprocal, as modeled by Rabin (1993), in which case conflicts can escalate.

Within conventional contract theory, the theory of implicit or self-enforcing contracts may incorporate similar mechanisms. In this set-up the breakdown of

cooperation in repeated interaction may be viewed as responses to what is perceived as defections from efficient cooperation by the other party. However, this theory yields no insight into when or why a period of non-cooperation will occur, and hence does not provide an understanding of conflict after loss.

One next step for research would be to examine contractual conflicts, e.g. those solved through mediation, in order to find direct, real-world evidence of the role of motivated reasoning, self-image concerns and reciprocity in explaining conflict after a loss. Another next step is to explore the consequences of the conflict-after-loss phenomenon for how contracting parties should allocate risk and devise conflict resolution mechanisms.

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