Who Framed Roger Rabbit:
The Effect of Legal Role and Frame on the Outcome of Civil Disputes

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Abstract

The present study investigated the effect of framing and legal role on the propensity to settle by litigants in simulated legal disputes. Participants were given four different scenarios which factorially combined legal role, plaintiff vs. defendant, and frame, positive or gain vs. negative or loss. Participants also indicated their subjective probability of winning. The results indicated that positively framed litigants were more willing to settle than negatively framed litigants. Furthermore, this analysis revealed that the propensity to settle was a joint function of frame and the perceived chance of winning, with no systematic effect of legal role. Accordingly, we suggest that framing manipulations may be able to influence the rate of negotiated settlements of legal disputes.

Keywords: Prospect theory; framing; legal decision making; negotiation; role; plaintiff; defendant

Introduction

Negotiation is increasingly viewed as the preferred means of resolving disputes in crisis situations, including legal and non-legal disputes. The term 'crisis' here refers to conflict between two or more parties, where the parties must deal with each other, and where failure to negotiate a resolution will result in a risky and uncertain outcome. Litigation is therefore a primary example of this form of conflict. In a civil dispute, consisting of a plaintiff and a defendant, the plaintiff can (usually) only choose to sue one defendant, and similarly the defendant cannot choose not to be sued. The parties therefore must deal with each other. This distinguishes a crisis situation from other forms of negotiation, such as buyer/seller negotiations, where parties can choose to buy or sell elsewhere. Furthermore, in litigation, if parties fail to negotiate a settlement, the resolution of the dispute will be determined by a third party (a judge or jury) at a trial, where the outcome is risky and uncertain for both parties. This is in contrast to other forms of negotiation, where a failure to negotiate simply results in impasse and an end to negotiations. Apart from litigation, other types of crisis situations include inter-state conflict, hostage negotiation and some types of workplace industrial action.

Failure to resolve crisis situations through negotiations can have catastrophic consequences. In the case of litigation, civil trials have a major impact not only on the individual, in terms of financial and emotional strain, but also on society and the economy as a whole. For example, 1992 report suggested that litigation cost the US economy $300 billion per year, a figure which is rising by 12% annually (Luu, 1993). Furthermore, recent figures suggest that nearly 90% of US businesses are involved in litigation, with corporations engaged in an average of 37 lawsuits at any one time (Insurance Journal, 2005).

In light of this, there is considerable value in investigating how people evaluate outcomes and make decisions in crisis situations, using litigation as a framework. Early research attempted to explain litigant behavior through economic models of expected utility (Hogarth, 1987; Rachlinski, 1996), a theoretical orientation favored by at least some legal practitioners. For example, in 2000, the US Federal Court Judge, Randall Rader, stated his belief that a litigant will determine the value of a lawsuit by multiplying the probability of winning in court by the amount they are likely to win, and then subtracting the legal costs. Based on this calculation, a settlement offer will be accepted if it is higher than the expected value of the trial. On this view, negotiations fail due to differing estimates by plaintiffs and defendants of the probability of winning at trial.

Cognitive processes in dispute negotiation

The problem with Judge Rader's approach is that economic utility models disregard the cognitive processes involved in decision making, and in doing so fail to adequately describe human behavior. It is for this reason that attention is now focused on how an individual represents the facts of the dispute, the probabilities of different outcomes, and the nature and value of what is at stake.

Several investigators have attempted to account for failure of negotiations in terms of differing representations of plaintiffs and defendants (e.g., van Koppen, 1990; Korobkin & Guthrie, 1994; Rachlinski, 1996). These studies investigated the effect of *framing* on decision making. The concept of framing was introduced by Kahneman and Tversky (1979) as part of their development of prospect theory which they offered as an alternative to traditional economic utility models. According to prospect theory, individuals evaluate outcomes in terms of gains and losses

from a given reference point which, in turn, influences an individual's risk preferences. Decisions made in the context of gains are said to be "positively framed" and are generally characterized by risk aversion. In contrast, decisions made in the context of losses are said to be "negatively framed" and are characterized by risk seeking behavior.

Prospect theory suggests that a positively framed litigant will be risk averse, and therefore be more inclined to reach an out-of-court settlement (a certain outcome) than their negatively framed counterparts. In contrast, a negatively framed litigant will be much more willing to risk a trial rather than accept a certain outcome in the form of a settlement. The challenge for researchers is to identify the conditions under which litigants will be either risk seeking or risk averse, and whether these conditions can be manipulated to help increase the number of negotiated settlements.

In one of the first studies to examine the effect of frame on litigant behavior, van Koppen (1990) proposed that during settlement negotiations, plaintiffs will be in a positive frame while defendants will be in a negative frame. This, he suggested, followed from the fact that a plaintiff typically chooses between gains – they must decide whether to accept a sum of money or go to trial – while a defendant typically chooses between losses – they must decide whether to *pay* a sum of money or go to trial. Van Koppen tested this hypothesis by presenting a civil dispute scenario to participants in which they adopted the role of either plaintiff or defendant. Participants were then asked to nominate a sum that they would be prepared to accept (if the plaintiff) or to pay (if the defendant) in order to settle out of court. The results showed, as expected, that plaintiffs were more risk averse than defendants.

Although van Koppen (1990) showed that plaintiffs are more risk averse than defendants, it is not possible to attribute this solely to a difference in frame or reference point since, in this study, legal role (plaintiff or defendant) and frame (positive or negative) were perfectly confounded. Van Koppen attempted to eliminate an effect of legal role by creating a scenario in which each participant was faced with largely equivalent facts. This scenario involved participants imagining that they had purchased a new puppy from a breeder. Unbeknownst to the purchaser, the puppy has a heart defect and dies soon after delivery. Different legal roles were created as follows: in the plaintiff version, the purchaser pays for the puppy on delivery and subsequently sues the breeder for a refund. However, in the defendant version, payment is required later. When the puppy dies, the purchaser withholds payment, for which breeder then sues. Van Koppen assumed that the only relevant difference between the scenarios is the question of suing or being sued. Nevertheless, it is clear that the facts of the case genuinely differ between the two versions, and participants may have adopted quite different interpretations of the relative merits of each case.

Frame and legal role

An important caveat is that, though intuitively appealing, there is no necessary link between frame and legal role. The adoption of a frame depends on the evaluation of outcomes in terms of gains and losses from a given reference point (Kahneman & Tversky, 1983). Therefore it should be possible to manipulate how a litigant perceives their situation, largely independently of whether they play the role of plaintiff or defendant. Consider, for example, a company that has purchased a piece of machinery to perform a particular task. It is soon discovered that the machine contains a manufacturing fault and it ceases to function. The manufacturer acknowledges responsibility and replaces the machine two weeks after the fault was discovered. The company decides to sue the manufacturer for income lost during the two weeks it took to replace the faulty product. According to van Koppen (1990) the company – as the plaintiff in the legal action – will evaluate the outcome in terms of potential gains and will thus be in a positive frame. This is based on the assumption that the company's reference point is set at the position in which they find themselves following the two week hiatus. However, it is possible (even likely) that the company chooses a reference point based on the position they would have been in had the machine not been faulty. This induces a negative frame, since anything less than full income reimbursement represents a loss.

Similarly, depending upon where their reference point is placed, there is no reason why a defendant may not also adopt a positive frame. Consider, for example, the editors of a tabloid magazine who decide to print a potentially defamatory article and are subsequently sued because of it. In the meantime, they have sold a great number of additional magazines and have garnered some valuable notoriety. If they take the current situation as their reference point then the legal action involves a potential loss of income and they will be in a negative frame. However, if they take as their reference point the situation they would have been in had they not chosen to publish the article then the current situation would represent a potential gain and they would be in a positive frame.

If it is possible to manipulate frame independently of legal role then this may offer a way of helping to resolve legal and other disputes. In general, a dispute is settled if the maximum offer that the defendant is prepared to make is greater than or equal to the minimum price that the plaintiff is prepared to accept. In the standard view, the plaintiff is in a positive frame and the defendant is in a negative frame, which poses difficulties for settlement. While a risk averse (positively framed) plaintiff may be willing to make a generous offer, a risk seeking (negatively framed) defendant is unlikely to accept. From the perspective of promoting negotiated settlements, negative frames in either plaintiff or defendant will increase the chance that the action goes to trial. This observation is consistent with the effect of framing on both buyer-seller negotiation (Neale, Huber & Northcraft, 1987) and managerial negotiation (McCusker & Carnvale, 1995).

The ability to resolve disputes through manipulation of frame depends crucially on the relative importance of framing and legal role in determining the decision to settle. It is possible that although framing effects may

occur, as proposed by Kahneman and Tversky (1979), they are minor compared to the effects of legal role. In this case, the capacity to intervene in disputes using this strategy would be limited. On the other hand, it is also conceivable that there are little or no intrinsic differences in legal role in their effects of the decision to settle and that framing effects dominate. In this case, the opportunity to alter the outcome of negotiations through re-framing presents itself.

The present study

The aim of the present study is to examine the effects of frame and legal role on the decision to reach an out-of-court settlement in a legal dispute. Participants received a questionnaire containing four different legal scenarios, each of which dealt with a civil dispute for a sum of $20,000. Although the facts concerning each scenario remained the same, each could be presented in one of four forms that factorially combined legal role, plaintiff vs. defendant, and frame, positive vs. negative. For plaintiffs, positively framed scenarios described potential outcomes in terms of gains relative to the current situation following the initial loss of income. Thus, a positively framed plaintiff could either *gain* $20,000 in or *gain* nothing, depending on the outcome of the trial. Negatively framed scenarios, on the other hand, described potential outcomes in terms of losses relative to the situation they would have obtained had the initial loss of income not occurred. For a negatively framed plaintiff, this meant that they could either *lose* $20,000 or *lose* nothing at trial. Conversely, for defendants, negatively framed scenarios described potential outcomes in terms of losses relative to the current situation following an initial increase in income. Positively framed scenarios described potential outcomes in terms of gains relative the situation that would have obtained had the initial increase in income not occurred. In each scenario, participants were told that a single settlement offer of $10,000 was on the table. If this was rejected and the case went to trial then they had a 50% chance of either being awarded or having to pay the entire sum of $20,000 and a 50% chance of being awarded or having to pay nothing. Participants read each scenario in turn and were asked if they would accept or reject the settlement offer. Also, following the results of a pilot study, participants were asked to indicate what they believed their (subjective) chance of winning in court was, regardless of the lawyer's (objective) advice. We expected to find an effect of both role and frame on the decision to settle although the relative sizes of these effects and whether or not they were independent of each other were unknown.

Method

Participants

The participants in this study were 193 psychology students from the University of Adelaide who received course credit for their participation. They were aged between 16 and 39 (M = 19.6, SD = 4.03) and were randomly assigned to one of four groups.

Materials

Participants completed a questionnaire consisting of four legal scenarios. Each scenario was presented in one of four test conditions defined by the factorial combination of role (plaintiff or defendant) and frame (positive or negative). Each scenario could be presented to participants either as a positively framed plaintiff (P+), a negatively framed plaintiff (P-), a positively framed defendant (D+) or a negatively framed defendant (D-). Thus, each participant was under each condition once, and saw each factual scenario once. The assignment of scenarios to each role/frame combination was counterbalanced across four different versions of the questionnaire. In each version, the four scenarios were always presented in the same order, but the order in which the conditions were presented was counterbalanced.

Each scenario outlined the facts of a legal dispute which could plausibly be presented in both positive and negative frames for both the plaintiff and the defendant. The first scenario involved a defamation claim between a shop owner and a newspaper. The second scenario outlined a property dispute between an investor and a bed-and-breakfast operator. The third scenario was a contractual dispute between two business partners regarding entitlement to income. The fourth scenario described an inheritance dispute between two cousins. In each case, it was stated that the plaintiff was suing the defendant for $20,000, that the chance of winning at trial was 50%. If the plaintiff won at trial then the defendant would have to pay the full $20,000 to them, alternatively, if the plaintiff lost at trial then the defendant would have to pay them nothing. For simplicity, there were no legal costs associated with the case. Each participant was told that a settlement offer of $10,000 had been made and they were asked if they would be prepared to accept it in order to avoid a trial. Participants were also asked the following question after each scenario in order to obtain an indication of the subjective chance of winning:

> 'Your lawyer has advised that you have a 50% chance of winning in court. Based on the details provided, what chance (as a percentage) do YOU think you have of winning in court?'

Each scenario established the relevant legal role by means of an initial statement of the form: 'You are the plaintiff/defendant in a litigation suit…' The relevant frame was established through alternative wording of the trial outcomes and the offer. For example, in the first scenario, the trial outcome in the positively framed plaintiff condition is described as follows,

> "Your lawyer has estimated that you have a 50% chance that the judge will rule in your favor and your will receive $20,000 in compensation and a 50% chance that the judge will rule against you and you will receive nothing in compensation"

Similarly, the settlement offer in this condition is described in the following way,

> "If you accept this offer, you will receive $10,000 in compensation"

In the condition of a negatively framed defendant, the phrase, "receive … in compensation", was replaced by the phrase "pay … in compensation". For the negatively framed plaintiff, this phrase was replaced by the phrase, "lose … in income", while for the positively framed defendant, it was replaced by the phrase, "keep … in new income".

Design and Procedure

Participants were allocated to one of four groups corresponding to the version of the questionnaire they received. They were asked to read through and to respond to all four scenarios in the order in which they were presented. They were instructed to consider each scenario separately and to make their decision solely on the basis of the details provided, without regard to legal fees or court costs. They were also asked not to view the scenarios as moral dilemmas, as both plaintiffs and defendants would feel that their position was correct.

Results

Due to space constraints, the reporting of these results is necessarily brief. In order to determine whether the framing manipulations were successful, the data were analyzed using logistic regression to determine the main effects of role, frame and their interaction, with subjective beliefs about the probability of winning included as a covariate (see figure 1). An overall analysis, collapsed across all scenarios, showed subjective chance of winning to be highly significant ($p < .001$) and the biggest predictor of settlement. The analysis further revealed a highly significant framing effect ($p < .001$), with positively framed litigants approximately 21% more likely to settle than their negatively framed counterparts, regardless of role. Importantly, the effect of role was not significant ($p > .05$), nor was there an interaction between role and frame. This suggests that role and frame are distinct constructs, and it is frame that more strongly influences people's decisions.

An examination of individual scenarios revealed a similar pattern to the overall analysis, with litigants in a positive frame consistently more likely to settle than those in a negative frame. Subjective chance of winning remained highly significant in all scenarios. The effect of frame was significant ($p < .05$) in three of the four scenarios, while role was significant in only one instance (Scenario 3). As with the overall analysis, there was no interaction effect between role and frame for any scenario.

Discussion

This experiment revealed three main results. First, the decision to settle a simulated legal dispute is strongly influenced by frame. In three of the four scenarios, a litigant in a positive frame was more likely to accept the settlement offer than a litigant in a negative frame. This effect is consistent with prospect theory, as proposed by Kahneman and Tversky (1979). When induced to be in a positive frame and thereby choosing between gains, participants in this study were consistently risk averse – they were more likely to accept the settlement offer with its certain outcome and less likely to go to trial with its uncertain outcome. Conversely, negatively framed participants, choosing between losses, were more risk taking – they were less likely to accept the settlement offer and more likely to go to trial. The second finding was that the effect of frame was independent of any effect of legal role as none of the interaction terms approached significance. This further supports the view that role and frame should be viewed as very different constructs.

The third main result is that the effect of legal role on the decision to settle was inconsistent across scenarios. This suggests that once the influence of frame has been controlled, there is little or no difference between plaintiffs and defendants in their propensity to settle. This contradicts previous claims that plaintiffs will always be more risk averse and thus more likely to settle (e.g., Rachlinski, 1996; van Koppen, 1990). In fact, the results for Scenarios 2 and 3 in the present study show that it is possible, under some circumstances, for plaintiffs to be less likely to settle than defendants, independent of how they frame the dispute. This last result, in conjunction with the variable effect of role across the other scenarios, was unexpected.

Modelling the Effects of Role, Frame and Perceived Chance of Winning

By constructing a simple model based on prospect theory, it is possible to combine the results of this experiment in a single graph that demonstrates the effects of role, frame, and perceived chance of winning on the probability of accepting the settlement offer. In order to do this, we first note that according to prospect theory, the settlement offer will be accepted if its perceived value is greater than the perceived expected value of going to trial. An individual in a positive frame, whether plaintiff or defendant, should settle if,

$$w(1).v(\$10,000) > w(p).v(\$20,000) + w(1-p).v(\$0)$$

where $v(.)$ is a subjective value function that takes a quantity (money in this case) as its argument, and $w(.)$ is a weighting function applied to the subjective probability of winning at trial, p. According to Kahneman and Tversky (1979), people tend to assign greater weight or importance to probabilities close to zero and relatively less importance to probabilities close to one. A similar equation can be written for an individual in a negative frame. In this case, such an individual should settle if

$$w(1).v(-\$10,000) > w(p).v(-\$0) + w(1-p).v(-\$20,000)$$

In other words, they will settle if the perceived value of the settlement offer is greater than the expected value of going to trial. This, in turn is determined by the subjective value of winning at trial, and losing nothing, and the subjective value of losing at trial and losing the full amount.

In the present study, the objective values of the settlement offer, \$10,000, and the award, \$20,000, were both fixed. According to prospect theory, the subjective values of these quantities are therefore also fixed for a given individual. We assume that the respective values are also fixed across individuals for a given role, frame, and scenario. This means that, after re-arranging the terms in the above equations[1], for an individual in a positive frame, the settlement offer will be accepted whenever,

$$w(p) < \frac{v(\$10,000)}{v(\$20,000)} = r_+$$

while for an individual in a negative frame, the offer will be accepted whenever,

$$w(1-p) > \frac{v(-\$10,000)}{v(-\$20,000)} = r_-$$

When modelling these data, it is important to note that the average subjective probability of winning varied between scenarios. The effect, however, appears to be consistent across conditions, with participants exhibiting a high level of agreement regarding the chances of winning. For example, in Scenario 1, all four conditions believed, on average, that the plaintiff had a 60% chance of winning in court. Conversely, in Scenario 3, all conditions believed it was the defendant who had a 60% chance of winning.

With this in mind, we assume that within each such condition, subjective probability is approximately normally distributed with a mean and standard deviation corresponding to the observed mean and standard deviation for that condition. We also assume, as a first approximation[2], that $w(p) = p$. Let m_i and s_i be the mean and standard deviation of the subjective probability of winning at trial for condition i. Let P_i be the probability of accepting the settlement offer in condition i, and let $\Phi(.)$ be the normal cumulative distribution function. Then, for participants in a positive frame, $P_i = \Phi((r_+ - m_i)/s_i)$, while for participants in a negative frame, $P_i = \Phi((1 - r_- - m_i)/s_i)$.

Figure 1 presents the observed probability of accepting the settlement offer as a function of the subjective probability of winning at trial for each combination of role, frame, and scenario. The figure also shows the predicted functions for the best-fitting values of r_+ and r_-. These values were found to be 0.60 and 0.48, respectively, and may be interpreted as the relative value of a gain or loss of \$10,000 compared to a similar gain or loss of \$20,000. The best fitting values that we obtained indicate that for this sample of participants and conditions, a gain of \$10,000 is perceived as equivalent to 60% of a gain of \$20,000 while a loss of \$10,000 is perceived as equivalent to 48% of a loss of \$20,000. These values are consistent with prospect theory which proposes that the subjective value function is negatively accelerating

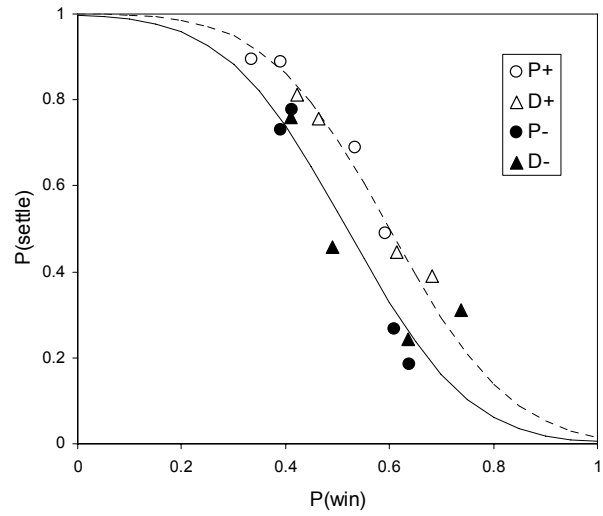

Figure 1: The probability of settling as function of the probability of winning across scenario, frame, and role.

for gains and positively accelerating and steeper for losses. Accordingly, the ratio for gains, r_+, is both greater than 0.5, indicating a negatively accelerating function, and greater than the ratio for losses, r_-, indicating a steeper function for the latter.

Figure 1 also illustrates two main effects. First, there is a general trend for participants to become more risk taking as their subjective probability of winning increases. This agrees with both prospect theory and commonsense - if you think you are going to win at trial then, if you are the defendant, you are more likely to offer a relatively lower sum to settle and, if you are the plaintiff, you are more likely to demand a relatively greater sum to settle. However, these results directly contradict the conclusion reached by van Koppen (1990) that litigants become less risk taking as their subjective probability of winning increases. In fact, the conclusion reached by van Koppen appears to misconstrue the concept of framing. Framing is a process whereby individuals evaluate outcomes in terms of gains and losses from a given reference point and is conceptually distinct from the expected probability of a particular outcome. Thus, according to prospect theory, every outcome, regardless of its probability of occurrence, can be presented in both a positive and a negative frame. For example, a plaintiff in a negative frame will feel that they are owed \$20,000 and will still consider anything less than this sum to be a loss, regardless of their *expectation* of the money's recovery. To assume, as Van Koppen does, that frame is contingent upon an outcome's probability is analogous to suggesting that if you lose \$20 from your wallet, you would consider it a loss only if you expected to find it again (or alternatively, that you would actually consider it a gain if you recovered it).

Figure 1 also demonstrates the effect of frame. Although the data tend to be more consistent for positively framed conditions than for negatively framed conditions, overall, for a given subjective probability of winning, individuals in a positive frame are more likely to settle than individuals in

[1] The null term in each equation falls out since, according to prospect theory, $v(0) = 0$. We also assume that $w(1) = 1$.

[2] Similar results obtain if alternative weighting functions are assumed.

a negative frame. The effect is greatest for probabilities around 0.5, and the average difference is about 10%.

Finally, Figure 1 also demonstrates the lack of an effect. Overall, there is little or no evidence of a systematic effect of legal role. However, it should be noted that there is at least one anomalous data point corresponding to the negatively framed defendant (D-) in scenario 4. Although in a negative frame, participants in this condition agreed to settle at a rate that would be expected if they were in a positive frame. At present, we are unable to account for this effect.

General Discussion

The principal result of the present study is that the likelihood of accepting an offer to settle out of court can be shaped by two factors; the frame or reference point under which the offer is evaluated, and the subjective probability of winning at trial. Critically, this result is inconsistent with the view that plaintiffs are risk-averse and defendants are risk-seeking (van Koppen, 1990). Instead, the present study showed that both plaintiffs and defendants are equally susceptible to framing manipulations.

The study also suggests that – at least when evaluating hypothetical situations – there is no self-serving bias influencing people's expectations. That is, while it is unclear what really does cause participants to disagree with the lawyer's assessment of the outcome probability, it is unlikely to be due to a role effect. Indeed, it seems more likely that the divergence is a function of the participants' own assessment of the factual scenarios used, rather than a systematic effect of role. This study therefore rejects the assumption that role necessarily determines a litigants' risk preferences and subjective assessments. In particular, it appears that risk preferences are determined by framing, and that it may be possible to arbitrarily manipulate frame for both plaintiffs and defendants.

From an applied perspective, these results suggest that re-framing may be a useful tactic in negotiations to increase the chance of reaching a settlement. That said, the study did not manipulate this directly. Rather, individuals were asked to assume the role of either plaintiff or defendant and to evaluate a fixed settlement offer. An obvious extension of the present study would be to pair plaintiffs and defendants in different frames. As discussed earlier, prospect theory predicts a set of ordered outcomes for pairs of litigants in different frames.

We were able to manipulate frame relatively easily in the present study as the participants were all involved in simulated legal disputes. It is unclear how successful it would be to manipulate frame in the real disputes. Further research is required to determine the extent to which actual litigants adopt variable reference points in their evaluations, the extent to which these are fixed or are labile throughout negotiations, and how easily they may be influenced by third parties, such as lawyers.

Acknowledgments

This research was supported by an Australian Research Discovery Grant (DP0558407) to JCD. VG was supported by an Australian Postgraduate Award and DJN by an Australian Research Fellowship (ARC grant DP0773794). We thank Nancy Briggs for helpful comments and analysis.

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