

Goal Framing Predicts Strategy Revision: When and Why Negotiators Reach Integrative Agreements

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Abstract

We propose a new model linking how negotiators represent, or frame, their goals to whether they revise or persist with their planned strategies. In three studies, we report evidence consistent with the model's predictions. The critical finding is that how parties' framed their goals predicted how they revised their strategies upon subgoal failure. Parties with interest-framed goals often revised their strategies and negotiated creative, integrative agreements. Parties with position-framed goals tended to persist with their strategies, resulting in few integrative agreements. The suggestion is that in complex task situations, flexible and creative strategy revision is facilitated by how people represent their goals, and whether they experience subgoal failure. The research has implications for theories of planning, goal setting, and strategic behavior.

Keywords: Strategy; Planning; Goals; Negotiation; Framing.

Introduction

People set goals and attempt to achieve them (Kruglanski et al., 2002). Cognitive scientists have made substantial progress thinking about goals in terms of hierarchies—a goal spawns levels of subgoals using means-ends analysis or some similar algorithm, amounting to a set of planned steps for achieving a goal. But cognitive science approaches have spent less time examining the effects of the different kinds of goals that people set. In contrast, social psychologists have made extensive progress examining kinds of goals on motivation and task performance (Locke & Latham, 1990). But goal-setting and related research has largely failed to acknowledge goal hierarchies, and as a result suffers unduly from a lack of theoretical specificity. We integrate the two approaches in the context of examining how negotiators represent their goals and how they revise their initial strategies. In so doing, we provide a new explanation for one of the central questions concerning negotiation, which is when and why negotiators form creative and valuable agreements.

Goals are critical for understanding negotiation and social conflict, because in these situations people typically perceive that their goals are in conflict (Thompson & Hastie, 1990). Fortunately, sometimes necessity really is the mother of invention and everyone ends up better off. Follett

(1940) provides and analyzes an archetypal example of social conflict producing integrative agreements:

A Dairymen's Co-operative League almost went to pieces last year on the question of precedence in unloading cans at a creamery platform. The men who came down the hill (the creamery was on a down grade) thought they should have precedence; the men who came up the hill thought they should unload first. [The dairymen did not want to have to wait on a slope.] The thinking of both sides... was thus confined within the walls of these two possibilities, and this prevented their even trying to find a way of settling the dispute which would avoid these alternatives. The solution was obviously to change the position of the platform so that both up-hillers and down-hillers could unload at the same time. ...If the Dairymen's League had not fought over the question of precedence, the improved method of unloading would not have been thought of.

The Camp David accords between Egypt and Israel provide an analogous example (Pruitt and Rubin, 1986): rather than haggling over control over proportions of the Sinai Peninsula, the diplomats recognized that Egypt wanted sovereignty and Israel wanted security, allowing them to agree on a demilitarized zone under Egyptian control. In both this and the Dairymen's League example, negotiators took stances on an issue that would allow them to meet their goals. Forced into a temporary impasse because their stances were conflicting, the negotiators returned to their goals. This allowed them to discard their original stances, revise their understanding of what issues were under discussion, and invent creative solutions. This formulation of the analogy between these classic examples is in effect a sketch of a new model of goals, temporary impasses, strategic changes, and negotiated agreements. We develop and provide initial tests of this model.

This model provides three broad theoretical advances. First, it provides a new explanation for a phenomenon noticed in the goal-setting and negotiation literatures. Specific, challenging goals are more motivating and lead to better performance than abstract goals if tasks are simple, but abstract goals are better for complex and ambiguous tasks (e.g., Earley, Connolly & Ekegren, 1989; Sweller & Levine, 1982; Latham & Pinder, 2005, provide a review). We will suggest the benefit of abstract goals is tied to its effect on strategy revision.

A second advance is clarifying two aspects of goal abstractness. The primary focus in the goal-setting literature

has been on the motivational benefits of concrete goals (particularly those that are high or extreme) over abstract goals. However, abstractness can be important for defining goals accurately. A widely accepted prescriptive claim from negotiation is that negotiators should focus on their interests (abstract, underlying needs and wants), not their positions (specific stances on concrete issues; Fisher, Ury & Patton, 1991). Because a position-framed goal can be achieved by reaching a particular negotiation outcome, it may be more motivating than an interest-framed goal. Interest-framed goals can only be enabled, but not actually achieved, by a negotiation outcome. However, interest-framed goals should better define the problem negotiators are trying to solve, and entail less commitment to particular outcomes on specific issues. For complex tasks, this should be helpful.

A third advance is that we can provide a descriptive prediction for an open normative question in the artificial intelligence literature on planning. There is no clear answer as to whether planning algorithms should revise or maintain and extend their goal hierarchies when there are subgoal conflicts or failures (Veloso & Stone, 1995). We predict that people choose based on how they frame their goals. At the same time, this allows us to provide a precise definition of what a temporary impasse in a negotiation is, and when and why it leads negotiators to create integrative agreements.

A New Negotiation Model

We propose a new model of goal-directed behavior in negotiation. It has three main components: goals, strategies, and temporary impasses. The model also has a simple meta-strategy, or a set of general rules by which negotiators create and change strategies.

A goal is an objective a negotiator plans to obtain. Key to our account is that goals can be framed as the achievement of negotiators' interests, or as the achievement of particular positions. These differ in several ways. Interests are defined without respect to the specific issues that fulfill them. To draw on our initial examples, the Dairyman's desire not to wait on a hill is not specific to the issue of the loading dock, and the Israeli desire for security is not specific to control of the Sinai. Positions are defined in terms of specific issues. Being able to unload first presumes unloading priority is the issue to be resolved, and controlling 90% of the Sinai presumes amount of control is the issue to be resolved. Thus interests and positions are framed differently, differ in their level of abstraction, and differ in how strongly they commit a negotiator to specific issues.

A strategy in this model is a plan for reaching a goal. Critical for our purposes is that it is a set of objectives to obtain (we leave open that there may be additional influences on tactic or operator selection, such as broad social motivations or skill-set). This allows us to focus on strategies as goal hierarchies created by the model's meta-strategy, means-ends analysis (Newell & Simon, 1972). To illustrate how this applies to negotiation, consider the example of one party, a pair of sellers, who wish to sell their business so they can travel for two years and have sufficient

resources for their return. Because they cannot directly trade their business for their trip, they generate the obvious subgoal of attempting to sell their business for a high enough price to allow them to afford their trip and return. Then the sellers need to find a buyer, and set a sub-subgoal of listing their business with a broker.

Changes in strategy, according to means-ends analysis, should be driven by failures to achieve subgoals. Means-ends analysis provides two approaches to changing a strategy in response to a temporary impasse. The first approach we can call strategic persistence (cf., Audia, Locke & Smith, 2000): if a negotiator cannot achieve a subgoal, then the negotiator keeps that subgoal as part of their strategy and adds a new subgoal at the next level down in the goal hierarchy. This new lower-level subgoal is added to fix the problem—if the negotiator can fulfill this new lower-level subgoal, they will then be able to accomplish the formerly blocked subgoal. In our example, if the buyer appears unwilling to pay at least the sellers' minimum price for their trip, the sellers might try to persuade the buyer in a new way to pay this amount, or they might propose a financing arrangement to reduce the difference between the price they want and the price a buyer is willing to pay. Thus the sellers do not give up their subgoal of achieving a particular sale price, but instead persist by generating new objectives that will enable them to make that price subgoal, on that issue, acceptable.

The second approach to changing a strategy within means-ends analysis we can call strategic flexibility. If a negotiator cannot achieve a subgoal, then the negotiator can modify or discard the subgoal, and seek out an alternative or complementary subgoal. For example, the sellers might decide to modify their existing subgoal by lowering what price is acceptable and simultaneously add a new subgoal to obtain a job contract with the buyer upon returning from their trip. To clarify the contrast, strategic persistence means maintaining the current set of goals and subgoals, and adding new lower-level subgoals to the goal hierarchy. Strategic flexibility means changing the current set of goals and subgoals by eliminating, revising and/or adding new subgoals at the same level in the goal hierarchy.

The final component of the model is a claim about whether negotiators, upon encountering a temporary impasse because they cannot achieve a subgoal, will exhibit strategic persistence or strategic flexibility. We offer two predictions. First, strategic persistence and strategic flexibility should be beneficial or detrimental depending on the fit of the goal hierarchy to the task circumstances. For simple and unambiguous tasks, it is likely that people's initially planned goal hierarchies will be well formed for the task, and hence strategic persistence should be advantageous. For complex and ambiguous tasks, people's goal hierarchies are unlikely to be well formed, and hence strategic flexibility should be advantageous because it allows adaptation to new interpretations of the task. Because there is so little research done on complex and ambiguous negotiation situations, and so much interest in the creation

of creative, integrative agreements, the current studies tested these circumstances.

Our second descriptive prediction is that negotiators with interest-framed goals will be more likely to exhibit strategic flexibility and negotiators with position-framed goals will be more likely to exhibit strategic persistence. Interest-framed goals are less strongly associated with particular issues than position-framed goals, and hence people should be more willing to change issues. In addition, interest-based goals should accommodate more and larger changes in strategy, as a broader range of concrete outcomes should be consistent with an interest-based goal than a position-based goal. To change strategy when the goal is concrete could require a reassessment of the goal itself, not just a subgoal. Thus, we propose that the two different goal frames lead negotiators to respond differently to temporary impasses.

Model predictions

This model of goals, temporary impasses and strategic change in negotiation generates a variety of predictions, some of which provide new explanations for existing research findings, and some of which are novel and we test in the subsequent studies. In the interest of space, we emphasize three here. First, negotiators with interest-framed goals will be more likely to generate integrative agreements than negotiators with position-framed goals. Although this prediction is widely taught, it has never been directly tested nor clearly theoretically explained. We claim that this effect is due to negotiators having difficulty achieving subgoals during their negotiations. Thus, our second prediction is that temporary impasses (due to subgoal failure) will lead those with interest-framed goals to revise their strategies, and those with position-framed goals to persist with their strategies, and that it is this difference that produces the differential likelihood of forming integrative agreements. Finally, we claim that without a temporary impasse, even negotiators with interest-framed goals are likely to persist with their strategies (as they lack a trigger to revise), and hence only the small number of negotiators who planned effective strategies from the start should reach integrative agreements. Thus, our third prediction is that negotiators who experience a temporary impasse are more likely to form an integrative agreement than negotiators who do not experience a temporary impasse.

We test these three predictions in the three studies that follow. All three use a negotiation role-play exercise about a party selling their small business that we used earlier to illustrate the model. The key challenge in the case is that it appears to be a negotiation simply over the sale price of a small business. The buyers have a limit on how much they can pay for the business, and this limit is below the amount that the sellers need for their trip. They can decide not to reach an agreement on this basis, the sellers can decide to take whatever funds they can and shorten their trip, or the parties can discuss additional issues latent in the case and create more valuable agreements. The most clearly beneficial agreement is for the buyer to hire the sellers upon

the return from their trip—the buyers' have the authority to do so and need to hire many managers in the coming years, and the sellers will need some form of employment on their return, and are well qualified for the position.

Study 1

Study 1 tested whether framing goals in terms of interests facilitates reaching integrative agreements. We predicted that sellers encouraged to have interest-framed goals will be more likely than those encouraged to have position-framed goals to reach an integrative agreement. We also used Study 1 to rule out an alternative explanation for the effects of goal framing. It is possible that goal framing has effects through influencing negotiators' targets. Because we already know that targets can influence outcomes (Zetik & Stuhlmacher, 2002), it is important to show that goal framing is a distinct issue from targets.

Methods

Participants A total of 222 people (154 MBA students and 68 executives) participated through negotiations courses. They were randomly assigned to their roles and counterparts. As we used the same population across all studies, we will describe its general characteristics here. All participants had at least five years of work experience. The MBA students tended to be in their late 20's and early 30s, and roughly 65% were male. The executives tended to be in their 30's and 40's (so have more work experience), and roughly 75% were male. There were no reliable differences between MBAs and executives in any study, so we collapsed across sub-populations for data analysis.

Procedure and Materials Participants were randomly assigned to either the buyer or the seller role for the Las Flores negotiation (a variant of Les Florets, Goldberg, 2006). We modified the Seller role to make two versions (about 50 words were changed out of a total of 750), one emphasizing the interest in taking the dream trip, the other emphasizing the financial bottom line. For example, the last sentence was either: "For all these reasons, you and your spouse feel that the buyer can [make an offer that allows you to meet your goal of sailing around the world] / [make the substantial offer you deserve so that you can meet your goal of 190,000 euros]." Critically, there were no factual differences between the two versions of the role materials. The words used in both versions implied that selling the business was how the seller would gain the funds needed for the trip. Neither version of the seller's role mentioned or encouraged the discussion of additional issues. Prior to negotiating, participants completed a one-page table asking them about their goals, target values, and minimum satisfactory outcomes, as well as their estimates of these matters for the other party. After the negotiation, participants wrote an open-ended description of their agreements or that there was no agreement.

Scoring We coded participants' pre-negotiation questionnaires as to whether they wrote position-framed goals (stating just a raw dollar amount or that the station

needed to be sold), or interest-framed goals (references to the trip or fulfilling the dream). This is a manipulation check for the condition implementation. The dependent variable was a coding of outcomes into one of three categories: no agreement, a poor agreement reflecting a compromise that did not meet at least one party's interests, or an integrative agreement that added issues (usually, a post-trip job) and allowed both parties to meet their interests. A single rater coded all pre- and post-negotiation questionnaires for all the studies reported in this paper. Separately, this coder also evaluated all the agreements. This coder was blind to the studies' purposes and the conditions (in the studies with manipulations) from which the materials resulted. A second coder evaluated 239 of the sellers' pre-negotiation questionnaires, disagreeing on only 11 (5%; $\kappa = .92$). The second coder also evaluated a small number of agreements, disagreeing on just 1 of 21 (5%; $\kappa = .90$).

Results and Discussion

Supporting our prediction, sellers in the interest-framed goal condition (61%) formed more integrative agreements than sellers in the position-framed goal condition (37%), $\chi^2(1, N=111) = 6.63, p = .01$. Further indicating the effects were in line with our predictions, we have evidence that our goal-framing manipulation was effective. Sellers in the interest-framed condition were more likely to write about interest-framed goals on their planning documents than sellers in the position-framed condition, 64% (38/59) versus 33% (17/52), $\chi^2(1, N=111) = 11.12, p = .001$. And sellers who wrote interest-framed goals were more likely to reach integrative agreements than sellers who wrote position-framed goals, 60% (33/55) versus 39% (22/56), $\chi^2(1, N=111) = 4.76, p = .029$. Framing goals in terms of interests must have helped sellers consider information that emerged during the negotiation because their agreements included information relevant to reaching an integrative agreement, such as job offers, profit sharing arrangements, and consulting contracts, that was not on their planning documents.

In addition, our model predicts that the influence of goal framing should be distinct from the influence of setting specific numeric targets. Confirming this prediction, a binary logistic regression model including the effects of sellers' condition and sellers' targets on the likelihood of reaching an integrative agreement showed that each contributed separately and significantly to the likelihood of an integrative agreement (goal framing condition: $B = 1.40, SE = .44, Wald \chi^2 = 10.05, p = .002$; sellers' targets: $B = .02, SE = .01, Wald \chi^2 = 5.94, p = .015$).

Study 2

Our model explains the Study 1 results by suggesting that negotiators largely formed integrative agreements because they framed their goals in terms of interests and experienced a temporary impasse. Further, we proposed that this impasse due to subgoal failure triggered flexible revision of the negotiator's plans, leading to creative, integrative agreements. Study 2 gathers direct evidence of temporary impasses and how parties responded to those impasses. We

do so by asking negotiators whether they experienced a temporary impasse, and if so how they attempted to resolve it. We expected most parties to say they experienced a temporary impasse (because the buyers cannot pay as much as the sellers need for their trip), and the key question is what parties do to try to overcome a temporary impasse.

Methods

Participants A total of 128 negotiations students (98 MBA students and 30 executives) participated, in the same fashion as in Study 1. No one participated in more than one study.

Procedure and Materials Participants were randomly assigned to one of the original buyer and seller roles (not the modified seller role as used in Study 1), and completed pre-negotiation questionnaires. They completed a new post-negotiation questionnaire asking whether they had reached a temporary impasse in their negotiations (forced choice, yes or no). Temporary impasse was defined for them: "it is called a temporary impasse when after negotiating for a while, negotiations seem to come to a halt and it appears unlikely that parties will reach an agreement." Those who responded yes answered additional questions: why the temporary impasse happened (open ended), whether and what parties did to get past it (open ended), and approximately when in their negotiations it occurred (forced choice: in the first, second, third or fourth quarter).

Scoring Two blind raters coded the open-ended responses to the temporary impasse questions. They coded for strategic flexibility, specifically, whether they explored non-price issues or discussed interests ($\kappa = .84$ for a sub-sample with $n = 62$). They also coded for strategic persistence, specifically, whether they made further arguments (including threats) to support their original claims about price, made concessions on price, or changed the timing of payments ($\kappa = .83$ for a sub-sample with $n = 62$).

Results and Discussion

As expected, sellers who wrote interest-framed goals on their planning documents (50%, 15/30) were more likely to reach an integrative agreement than sellers who wrote position-framed goals (21%, 7/34), $\chi^2(1, N = 64) = 6.11, p = .013$. Also as predicted, temporary impasses were highly likely: 91% of the dyads reported experiencing a temporary impasse. The remainder of the Study 2 analyses was done with just these dyads.

Negotiators' largely reported handling their temporary impasses by being flexible or by persisting with their strategies. By flexible we mean asking about each other's interests and considering non-sale price related issues, such as job offers. For example, one negotiator said that "I asked what we could bargain with outside of money, and he discussed freely his long term plan" and another stated that they "agreed to ballpark figures and identified other areas of value to make up the shortfall." Dyads with a seller writing interest-framed goals were more likely to exhibit flexibility (50%, 13/26) than were dyads with sellers writing position-framed goals (25%, 8/32), $\chi^2(1, N = 58) = 3.88, p = .049$.

The second approach was to persist: continuing with their current rationales for their positions on sale price. Examples of such persistence on price were that “our prices were too far apart, so we tried to rationalize the price” and “they stuck to a low price and would not provide the make up of the price. I kept on going back to the verifiable components of my valuation.” Dyads with sellers reporting position-framed goals showed a non-significant tendency to persist more than dyads with sellers reporting interests-framed goals (50% vs. 27%), $\chi^2(1, N = 58) = 3.19, p = .07$. The implication is that how sellers framed their goals led them to pursue substantively different strategies in response to their temporary impasses.

The two approaches for resolving temporary impasses had different implications for creating integrative agreements. Negotiators who were flexible after a temporary impasse mostly reached integrative agreements (67%, 14/21), whereas negotiators who were not seldom did (14%, 5/37), $\chi^2(1, N = 58) = 17.18, p < .001$. Negotiators who persisted in response to a temporary impasse were very unlikely to reach an integrative agreement (4%, 1/25), compared to those who avoided persisting (55%, 18/33), $\chi^2(1, N = 58) = 16.50, p < .001$.

These results imply that strategic flexibility mediated the effect of sellers’ goal framing on reaching an integrative agreement. A logistic regression including sellers’ goal framing and strategic flexibility showed that sellers’ goal framing was no longer a significant predictor of reaching an integrative agreement, $B = 0.73, SE = 0.68, Wald \chi^2 = 1.17, p = .28$, when being flexible with one’s strategic approach was included in the equation, $B = 2.42, SE = .68, Wald \chi^2 = 12.74, p < .001$. Further, a bootstrapped test of the indirect effect of sellers’ goals through integrative strategy that does not make distributional assumptions found that the estimated size of the indirect effect was 0.13, $SE = 0.07, p < .05$ (Preacher & Hayes, 2004).

Overall, sellers with interest-framed goals were just as likely to reach a temporary impasse as sellers with position-framed goals. What differed was how they reacted to that temporary impasse. Sellers with position-framed goals were likely to persist with their strategies, leading to poor, single-issue price agreements or no agreement at all. In contrast, sellers with interest-framed goals were likely to be flexible, share information and reach an integrative agreement.

Study 3

The remaining core prediction of our model is that without a temporary impasse forcing negotiators to re-evaluate their strategies, negotiators will simply follow through with their initially planned strategies. This implies that unless negotiators happen to be lucky enough to plan an effective strategy from the beginning, they should rely on temporary impasses to prompt them to revise their strategies. This leads to the prediction that if we limit the likelihood of a temporary impasse (by increasing the amount the buyers can pay such that it is higher than what the seller needs), then only those negotiators who spontaneously generate effective

initial strategies will reach an integrative agreement. In Study 3 we predict that negotiators who are likely to experience temporary impasses (because their buyers have limited funds to pay for the business) will be more likely to form integrative agreements than negotiators who are unlikely to experience temporary impasses (because their buyers have sufficient funds to pay for the business). The point is that negotiators are predicted to not reach an integrative agreement whenever such an agreement is possible, but to do so largely when forced, because they cannot otherwise meet their goals.

It is important to note that our Study 3 prediction is not about goal framing. We predict that no matter how negotiators frame their goals, if they do not encounter difficulties in executing their planned strategy and experience a temporary impasse, they will not need to change their strategy. They are also unlikely to negotiate an integrative outcome.

Methods

Participants In all, 222 people (194 MBA students and 28 executives) participated through negotiations courses as in the previous studies.

Procedure and Materials Participants in this study were randomly assigned to the buyer and seller roles using the materials from Study 2. No pre- or post-questionnaires were given. Participants were randomly assigned to one of two conditions. The negative bargaining zone condition was just like in the other studies—the buyer could not meet the seller’s minimum price. The positive bargaining zone condition differed only in that the buyer could pay more than the seller’s minimum price.

Results and Discussion

In the negative bargaining zone condition negotiators’ outcomes were as in previous studies: nearly evenly divided between impasse (35%), poor, non-integrative agreements (30%), and integrative agreements (35%). In contrast, negotiators in the positive bargaining zone condition frequently reached poor, non-integrative agreements (65%), experienced few impasses (17%) and few integrative agreements (19%; numbers add to more than 100% due to rounding). The distributions of agreements were reliably different, $\chi^2(2, N = 111) = 13.67, p = .001$. Critically, the negative bargaining zone condition (which should have induced temporary impasses and hence spurred a subset of negotiators to consider their interests and use integrative strategy) yielded reliably more integrative agreements than the positive bargaining zone condition (which should not have induced any such temporary impasses and strategic change), $\chi^2(1, N = 111) = 3.86, p = .049$.

General Discussion

How people frame a problem influences the strategies they use and the solutions they generate (Newell & Simon, 1972). We suggest on the basis of these studies that how people frame their goals influences how they change their strategies. We proposed a new theoretical model linking

how negotiators frame their goals to whether they persist with or change their strategies. We showed that if sellers had interest-framed goals and experienced a temporary impasse, they were likely to flexibly alter their strategy and reach integrative agreements. But if sellers did not frame their goals with respect to interests (Studies 1 and 2), did not experience a temporary impasse (Study 3), or in response to a temporary impasse did not exhibit strategic flexibility (Study 2), they were unlikely to form integrative agreements. The implication is that although people may, through luck or skill, be able to set useful strategies from the beginning of their social interaction, if people frame their goals in light of their interests, they will be more likely to be able to effectively revise their strategies when confronted with a challenge to achieving their goals. The result is that our model predicted, and we found consistent evidence, that integrative agreements largely happen out of necessity, because simpler plans failed.

The model we proposed uses well-known conceptual building blocks (goals, strategies, means-ends analysis) to provide a full account of a variety of negotiation phenomena. For example, it predicts that during a negotiation, negotiators are likely to focus on achieving their positional goals and the concreteness of those goals may lead them to be myopic and miss information relevant to their goals had their goals been framed in terms of interests. It provides an explanation for why negotiators satisfice rather than optimizing available value. It provides an explanation for when concrete, stretch goals should be effective (in unambiguous situations with positive bargaining zones) and when abstract goals should be effective (in ambiguous negotiations with negative bargaining zones). And it provides an explanation for some patterns commonly found in negotiation process research, such as initial tendencies to engage in positional bargaining (which we suggest is due to pursuing a planned strategy), sometimes followed by a switch to an interests-framed discussion (due to failing to achieve a subgoal and having an interest-framed goal).

The model and our studies also suggest opportunities for future research. For example, we have not specified what influences the nature of negotiators' initial strategies. We have not suggested when negotiators will reframe their goals versus change their strategies. We also have not discussed the role of trust building in facilitating integrative strategy early in the negotiation. Such an approach would seem to be more directly under a negotiator's control than waiting for a temporary impasse.

Finally, we note that although the model we developed was for the task of negotiation, few of its assumptions are specific to negotiation. The model could be extended to problem-solving generally. For example, whether to persist is a major issue in social decision-making, and we predict the effect of goal framing on strategic change should hold. Abstractness may be less motivating, but it may also allow for greater leeway for learning about the task and for changing one's strategy to suit it. Concretely framed goals

should aid persistence, which, if the task is clear, should minimize strategic change—which is now a positive—and thereby aid performance.

References

- Audia, R. G., E. A. Locke, & K. G. Smith (2000). The paradox of success: An archival and a laboratory study of strategic persistence following radical environmental change. *Academy of Management Journal*, 43, 837-853.
- Fisher, R., Ury, W., & Patton, B. (1991). *Getting to yes* (2nd ed.). New York: Penguin.
- Follett, M.P. (1940). *Dynamic Administration: The Collected Papers of Mary Parker Follett* (Eds. H. C. Metcalf & L. Urwick). New York: Harper & Brothers Publishers.
- Earley, P.C., Connolly, T., & Ekegren, G. (1989). Goals, strategy development, and task performance: Some limits on the efficacy of goal setting. *Journal of Applied Psychology*, 74, 24-33.
- Sweller, J., & Levine, M. (1982). Effects of goal specificity on means-ends analysis and learning. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 8(5), 463-474.
- Latham, G. P., & Pinder, C. C. (2005). Work Motivation Theory And Research At The Dawn Of The Twenty-First Century. *Annual Review of Psychology* 56, 485-516.
- Goldberg, S. (2006). Les Florets. In J. M. Brett (ed.) *Negotiation, Teamwork, and Decision Making Exercises*. Evanston IL: Dispute Resolution Research Center, Northwestern University CD.
- Kruglanski, A.W., Shah, J.Y., Fishbach, A., Friedman, R., Chun, W.Y., & Sleeth-Keppler, D. (2002). A theory of goal systems. *Advances in Experimental Social Psychology*, 34, 331-378.
- Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice-Hall.
- Newell, A., & Simon, H. A. (1972). *Human problem solving*. Englewood Cliffs, NJ: Prentice-Hall.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36, 717-731.
- Pruitt, D. G., & Rubin, J. Z. (1986). *Social conflict: Escalation, stalemate and settlement*. New York: Random House.
- Thompson, L., & R. Hastie. (1990). Social perception in negotiation. *Organizational Behavior and Human Decision Processes*, 47(1), 98-123.
- Velo, M., & Stone, P. (1995). FLECS: Planning with a flexible commitment strategy. *Journal of Artificial Intelligence Research*, 3, 25-52.
- Zetik, D. C., & Stuhlmacher, A. F. (2002). Goal setting and negotiation performance: A meta-Analysis. *Group Processes & Intergroup relations*, 5(1), 35-52.