The evaporating cloud: a tool for resolving workplace conflict

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Abstract

Purpose – This article has two purposes. The first is to synthesize the important current concepts, definitions, and styles of resolving and/or managing workplace conflicts. The second is to introduce a systematic approach to resolving workplace conflicts.

Design/methodology/approach – Historical approaches to conflict management are briefly reviewed and Goldratt’s evaporating cloud is introduced as a structured approach to achieving win-win solutions to workplace conflicts. A comprehensive case is used to demonstrate the application of the suggested approach.

Findings – Goldratt’s evaporating cloud provides a systematic approach to identifying the conflicting needs or interests of the parties to a conflict, and a process for making explicit the assumptions underlying the conflict and challenging their validity, leading to win-win solutions to workplace conflicts. The evaporating cloud incorporates well-accepted principles of achieving win-win solutions and complements existing approaches.

Research limitations/implications – Although there is a growing community of users of the evaporating cloud, it is still a relatively new approach. Although anecdotal examples of applications of the cloud have been published in trade journals, web sites and conference proceedings, additional empirical research should be done to evaluate the usefulness of the cloud in resolving workplace conflicts once a critical mass of users exists.

Practical implications – The evaporating cloud is a practical and intuitive tool that can be used by employees at all levels of an organization to understand and resolve conflicts.

Originality/value – The paper identifies the shortcomings of existing conflict management approaches and shows how the evaporating cloud complements existing approaches. In addition, the applicability of the cloud to a wide range of workplace conflicts, from intra-personal to inter-organizational, is demonstrated.

Keywords Logical diagrams, Evaporating cloud, Win-win, Tools, Conflict resolution, Workplace, Conflict management

Paper type Conceptual paper

One of us (Kuzmits) recently attended a conflict resolution workshop held at a prestigious Northeastern university where seminar leaders were drawn from the “cream of the crop” of academic researchers in the fields of negotiation and conflict resolution. Contemporary conflict management theories and methods were presented and individual and team exercises and games were both fun and invigorating. But after the dust settled, the realization set in that what was learned was simply a smattering of neat academic models and several lists of “do’s and don’ts” of negotiation and conflict resolution. What was not learned was actually how to resolve a conflict – how to engage in a dialogue that actually led individuals from conflict to an optimal resolution. Notably absent were useful methods for asking the right questions about a conflict, probing the right issues, and effectively examining each party’s assumptions and beliefs. Thus, the primary purpose of this article is to provide a managerial tool...
that goes beyond theories and lists and gives conflicting parties a roadmap for getting from point A, conflict, to point B, an optimal solution to the conflict.

**Conflict: a serious workplace problem**

Surveys show that employees spend as much as 42 percent of their time engaging in or attempting to resolve conflicts and 20 percent of managers’ time is taken up by conflict-related issues. Masters and Albright (2002) point out that most workers don’t realize how workplace conflict occurs, are often not even consciously aware of conflicts, and that managers as well as their employees are rarely trained to resolve conflicts constructively. Dana (2001) argues that organizations that fail to address the strategic management of workplace conflict run the risk of losing their competitive advantage, similar to those that failed to recognize quality management as a distinct organizational capability. Cloke and Goldsmith (2000) argue that workplace conflict results in significant economic and emotional losses including litigation, strikes, reduced productivity, poor morale, wasted time, employee turnover, lost customers, dysfunctional relationships with colleagues, destructive inter-departmental battles, and stifling rules and regulations. Clearly, confronting and managing organizational conflicts presents a major challenge to organizations that wish to successfully compete in today’s global economy.

The purposes of this paper are twofold. The first is to synthesize the concepts, processes, and theories underlying the resolution of workplace conflict. The second is to demonstrate Goldratt’s evaporating cloud (EC) as a simple, structured approach to conflict resolution. Using examples from a case study, we show how the EC can be used to resolve conflicts at several levels: intra-personal, inter-personal, inter-departmental, and inter-organizational. We also show how the EC complements, and in many ways incorporates, existing approaches for resolving workplace conflicts.

In the first section below, we provide a brief historical overview of conflict resolution, define conflict and discuss related terms and concepts. In the second section, we provide a brief overview of the literature relevant to this paper. In the third section, we introduce the evaporating cloud and discuss its components. In the fourth section we use a case, “We Googled You,” to show how the EC can be employed to address conflicts at various levels of organization. In the fifth and sixth sections, we discuss how the EC relates to accepted styles of conflict resolution and incorporates well-known principles of negotiation and conflict management. Finally, we discuss the limitations of our research and propose directions for future research.

**A brief historical overview**

Conflict is inevitable in all facets of life, both personal and organizational. Philosophers have studied conflict since Plato and Aristotle, and more recently sociologists, biologists, and organizational researchers have examined the origins, causes, and strategies for resolving conflict. In the early twentieth century, management scholars including Frederick Taylor, Henri Fayol, Max Weber and Mary Parker Follett also sought to uncover the causes of workplace conflict (Rahim, 2001). Since a vast amount of research has already been categorized and systematically documented in the form of journal articles (e.g. Fink, 1968; Thomas and Schmidt, 1976; Rahim, 1997; Tjosvold, 2006) and books (e.g. Thomas, 1976; Fisher and Ury, 1982; Rahim, 2001), the purpose of this section is only to provide a brief overview of the literature relevant to our discussion.
Definition and classifications

There are a number of definitions of the term “conflict.” Tedeschi et al. (1973) define conflict as “an interactive state in which the behaviors or goals of one actor are to some degree incompatible with the behaviors or goals of some other actor or actors.” Drawing on the concepts of game theory, Schelling (1960) suggests that conflict should be viewed on a continuum of cooperative to competitive; in cooperative conflict both parties receive a mutually satisfactory outcome (“positive-sum game”) whereas in competitive conflict one party’s win is matched with the other party’s loss (“zero-sum game”). This conceptualization leaves room for recognizing more realistic conflicts having characteristics of both competitive and cooperative aspects (“non-zero-sum game”). Dana (2001) defines workplace conflict as “a condition between or among workers whose jobs are interdependent, who feel angry, who perceive the other(s) as being at fault, and who act in ways that cause a business problem.”

Baron (1990), in a comprehensive review of definitions, points out that conflict occurs when a specific threshold level of intensity is exceeded in a disagreement and that the threshold level might differ from entity to entity. Rahim (2001) further broadens the definition by suggesting that conflict is “an interactive process manifested in incompatibility, disagreement, or dissonance within or between social entities.” This recognizes that entities (people, parties, groups) might become involved at different points in time in a conflict, and that conflict can be between organizations (inter-organizational), groups (inter-group) individuals (inter-personal) and also with oneself (infra-personal). In summary, organizational conflicts can be of various types and at various levels (see Figure 1).

Literature review: modes of dealing with conflict

Researchers have identified several modes or styles people use to deal with conflict. While the most widely-understood paradigm for resolving conflict may be that of fight (i.e. to compete and win the conflict) or flight (i.e. to avoid people with whom one is in conflict), it is also common to find managers who have other styles of dealing with workplace conflict. Follett, a classical management theorist, was many decades ahead of her time when she conceptualized three styles of handling conflict – domination, compromise, and integration – and argued for an integrative approach to conflict resolution (Metcalf and Urwick, 1940). Schmidt and Tannenbaum (1960) discuss four approaches to conflict resolution – avoidance, repression, competitive and...
collaborative – with the most appropriate approach depending on informational, perceptual, role, and other factors.

Thomas (1976) is generally credited for popularizing five general styles or strategies for managing conflict – avoiding, obliging/accommodating, dominating, compromising, and collaborating/integrating. He also categorized these styles by two key dimensions (see Figure 2):

1. the degree of concern for self, which can also be viewed as assertiveness or how assertive one is likely to be in pursuing one’s interests; and
2. the degree of concern for others, or how cooperatively one is willing to engage the other party.

Research on conflict styles suggests that managers tend to use one or two styles regardless of whether those styles are most appropriate for the situation, and that managers respond to a conflict situation based on the way they feel instead of the way they should respond (Aldag and Kzuhara, 2002; Hellriegel et al., 2001; Whetten and Cameron, 2002). Several scholars (e.g. Thomas and Kilmann, 1974) have developed questionnaires to help managers gain a deeper understanding of their dominant style of conflict-resolution behavior and help them determine whether changes in their style could increase their effectiveness in resolving conflicts. The literature suggests that:

- variations of these styles may be appropriate under certain conditions;
- managers should be aware of their dominant style; and
- managers should make a conscious effort to choose the best style for each situation.

Based on an extensive review of scientific studies, Rahim (2001) concluded that there appears to be agreement among scholars that the collaborative or integrative style is the superior approach to handling workplace conflicts because it promotes creative problem solving and fosters mutual respect and rapport. They point out that a consistent application of this style offers the greatest probability of producing win-win

![Figure 2. Conflict management styles/modes](image)
results for both involved parties. Consequently, in an attempt to achieve win-win outcomes, many scholars (e.g. Fisher and Ury, 1982; Dana, 2001; Cloke and Goldsmith, 2000; Rahim, 2001) have offered specific “to do” lists or steps. A review of these approaches to conflict resolution suggests that although there is general consensus regarding the basic principles of developing a win-win strategy (see following list), there is no structured, systematic approach to developing win-win solutions to organizational conflicts. The four points of principled negotiation (Adapted from Fisher and Ury, 1982) are as follows:

1. Separate the people from the problem.
2. Focus on interests, not positions.
3. Generate a variety of possibilities before deciding what to do.
4. Insist that the result be based on some objective standard.

Recently, Hoffman (2005, 2007) argued that diagrammatic reasoning is useful for bringing hidden knowledge to the surface so it can be explicitly considered by participants in a negotiation or conflict. Hoffman proposes a system referred to logical argument mapping to make such knowledge explicit and makes a strong case for the benefits of diagrammatic approaches in general in communicating and resolving conflicts.

We believe Goldratt’s evaporating cloud provides a structured, systematic way to resolve conflicts while it provides the benefits of the collaborative/integrative conflict resolution style. In addition, the EC is a logical diagramming approach that we believe provides the significant benefits enumerated by Hoffmann (2005). In essence, it provides managers a mechanism to effectively manage their reaction to conflict and be a part of the solution to difficult situations.

**The thinking processes: logical tools of the theory of constraints**

Eliyahu Goldratt, the developer of the theory of constraints, suggests that an organization must ask three fundamental questions to identify and resolve core business problems (Goldratt, 1990):

1. what to change;
2. what to change to; and
3. how to cause the change.

To answer these questions, Goldratt (1994) developed a set of techniques collectively known as thinking processes (TP). The first step in the thinking process begins with an identification of a set of undesirable effects (UDEs), or symptoms of problems that need to be eliminated. The cause and effect relationships between the undesirable effects are shown in a current reality tree (CRT), which is used to diagnose what in the system needs to be changed, i.e. what the core problem is. Because Goldratt believes that significant, chronic organizational problems are the result of conflicts, he developed the evaporating cloud (EC), the second of five thinking process tools. Goldratt also believes that proposed solutions to problems must be tested using cause and effect logic to ensure that they will actually result in the resolution of the conflict, and they will not result in significant new undesirable effects. Therefore, a third tool, the future reality tree (FRT) is used to test proposed solutions. The fourth tool is the prerequisite tree,
which identifies obstacles to implementing solutions and determines how to overcome those obstacles. Finally, the transition tree is used to create a logical, step-by-step implementation plan. The thinking process tools can be used as a set of integrated tools to address major organizational conflicts or as “stand-alone” tools to address specific aspects of a conflict. In this paper we will be discussing the use of the evaporating cloud on a stand-alone basis to resolve an organizational conflict.

The evaporating cloud
The evaporating cloud is a structured approach (Goldratt, 1994; Dettmer, 1997) to:

- identify and display all elements of a conflict situation (see Figure 3);
- identify underlying assumptions that cause the conflict to exist; and
- develop solutions that invalidate one or more of the assumptions.

Goldratt developed a conflict resolution tool as an “evaporating cloud.” The name highlights the tool’s capacity to resolve or evaporate a conflict by satisfying the concerns of both involved parties. In a recent seminar organized by the Goldratt Group, Barnard (2007) argues that a conflict can be defined more precisely by verbalizing the conflicting actions/decisions a manager currently feels pressure to take, the specific needs these actions attempt to satisfy, and the common objective for which the needs must be satisfied (see Figure 3).

Figure 3 shows five boxes labeled A, B, C, D, and D’, referred to as entities. Entities D and D’ represent two opposing wants or actions, entities B and C represent the respective needs to be satisfied, and entity A represents the common objective for which B and C are needed. In Figure 4, entities B and D represent one side (e.g. “my side”) of a conflict while entities C and D’ represent the “other party’s side.” (We note here that a third party (e.g. human resource manager) can use the EC to mediate between two parties in an organization (e.g. departments or employees) or anyone can use the EC to resolve an inter- or intra-personal conflict. We will elaborate on this later.) In the remainder of this section, we will explain the tool from an “initiator’s” perspective, i.e. the perspective of someone who is directly involved in the conflict and...
is willing to initiate the process of resolving the conflict. As suggested by Barnard (2007), Figure 3 lists some questions that an initiator might find helpful in identifying all the elements of a conflict. For example, when the manager has a problem, it is relatively easy to complete the D and D’ entities by answering questions Q1 and Q2. Similarly, the other entities can be completed by answering the other questions in Figure 3.

Each arrow in the EC diagram illustrates a relationship between two entities. The entity, for example, D, at the base of an arrow is necessary in order for entity B, at the head of the arrow, to exist. An assumption is a reason for the existence of the necessary condition relationship (Scheinkopf, 1999). The fact that assumptions underlying a conflict are invalid, or can be made invalid, is the key to resolving a conflict. Thus, in order to evaporate a cloud, we identify the assumptions under each arrow and then uncover an invalid assumption or identify an action that will make an assumption invalid, in which case the cloud “evaporates.” Actions taken to invalidate assumptions are referred to as “injections” in TOC terminology. Evaporating the cloud is just the first step: before an action that evaporates the cloud is considered a solution, Goldratt recommends using the future reality tree to ensure that it accomplishes what it is intended to accomplish and does not result in new undesirable effects.

In the following section, we will show how to read the EC and discuss the application of the EC using examples. We will also explain the relationship of the EC to various conflict management styles.

Application of the evaporating cloud: a workplace example

One way to better understand Goldratt’s approach to conflict resolution is by applying the evaporating cloud to a case involving conflict. One such case, entitled, “We Googled You,” appeared recently in the Harvard Business Review (Coutu, 2007). Each issue of HBR publishes a fictional mini-case with a specific dilemma that managers are facing. It also invites four experts to offer advice on how managers should respond to the issues in the case. Although the main purpose of the “We Googled You” case was to evaluate a hiring dilemma (see below the synopsis of the case), we selected this case because it also highlights a number of conflicts at different levels (e.g. personal, group,
and departmental). The case also provides an opportunity to demonstrate how the EC may be applied across various types of conflicts. Because this particular case has attracted so many responses from managers across the globe, HBR started a new regular feature titled “Interactive Case Studies” where responses from the managers are solicited and selectively published. A cursory review of over 200 responses to “We Googled You” provides a wide range of suggestions to resolve workplace conflicts (see http://harvardbusinessonline.hbsp.harvard.edu/flatmm/ics/index.html).

Synopsis of the “We Googled you” case
The case centers around a key hiring decision that must be made by Fred Westen, CEO of Hathaway Jones, a luxury apparel retailer with plans to expand in China’s burgeoning upscale goods market. Plans are to open new stores in three of China’s largest cities, Beijing, Guangzhou, and Shanghai. Fred receives a phone call from John Brewster, Fred’s old college roommate, who had heard about Hathaway Jones’ expansion plans into China. The real purpose of John’s call wasn’t to catch up on old times but to suggest that his daughter Mimi could be a key player in Hathaway Jones’ expansion plans. Soon after John’s phone call, Fred interviewed Mimi and was impressed with her confidence, marketing savvy and knowledge of the Chinese luxury apparel market. On paper, Mimi appeared well qualified: She was raised in China, spoke Mandarin, graduated cum laude from Berkeley with a degree in modern Chinese history and received her MBA from Stanford. She also had two successful brand launches with Eleanor Gaston, the largest clothing apparel company in the US. Although Fred didn’t promise her the job, the job appeared to be hers if her background investigation checked out. Virginia Flanders, Hathaway Jones’ vice president of human resources, was unhappy with the way Fred had made some important decisions in the recent past because he based them not on facts or logic but upon his “sixth sense.” Flanders collected letters of recommendation from previous employers of Mimi and also conducted a Google search, even though the company’s attorneys were still studying the legal ramifications of collecting internet information on job candidates. Employers were generally high on Mimi, praising her creativity, originality and risk-taking. But the Google search revealed a potential problem: according to a story in an alternative publication, Mimi had led nonviolent protests against the World Trade Organization soon after graduating from Berkeley, and a further Google search uncovered a picture of Mimi at the Chinese consulate in San Francisco participating in a protest of China’s treatment of a journalist. Presented with the potentially damaging news about Mimi, Fred now questioned whether Mimi’s brief foray into political protest eight years ago might put Hathaway Jones’ expansion plans in China at risk.

Fred faced a dilemma: should he take a chance on Mimi – assuming that her past would remain buried deep in Google’s massive database – or play it safe and not offer her the job? While this dilemma appears to be the overriding issue in the HBR case, a closer analysis reveals a series of conflicts faced not only by Fred, but also by others involved in the hiring decision:

- the conflict between Virginia Flanders and the CEO: to follow established human resource hiring procedures or make an exception to established procedures;
- CEO’s conflict: to Google or not to Google potential job candidates;
Mimi’s internal conflict: whether or not to disclose her brush with political activism; and
Fred’s ethical conflict: whether or not Mimi, his friend’s daughter, should receive preferential treatment because she is the daughter of an old college roommate.

Although this case presents several types of conflicts for analysis, we have decided to focus on the conflict between Virginia Flanders and the CEO to provide a detailed application of the EC.

Figure 4 illustrates how Virginia can develop a cloud to analyze one of the many conflicts in this case: Should the company follow human resource guidelines in hiring for the position, or make exceptions to established guidelines? (In developing the cloud, we have assumed that Hathaway Jones has hiring guidelines that contain a thorough assessment of both internal and external candidates). The CEO’s involvement in the hiring process and the fact that only Mimi is being considered appear to be in direct conflict with established HR procedures.

Identify and display the elements of a conflict
We have created the cloud for this conflict by answering the series of questions suggested in Figure 4 from Virginia Flanders’ point-of-view.

We see from entities D and D’ that she feels pressure to “follow established HR procedures for hiring and promotion” and, on the other hand, she believes that Fred feels pressure to “make exceptions to established HR procedures for hiring and promotion” in Mimi’s case. Thus, Virginia has clearly stated the opposite actions the two sides feel pressure to take. Through further questioning and analysis (as suggested in Figure 4), Virginia seeks to understand the needs that each party is attempting to meet (entities B and C) by taking the actions D and D’. The diagram reflects the two parties’ concerns in the top and bottom halves of the diagram respectively. It is worth pointing out that there is one common objective stated in entity A that requires both needs be met. In this case, each party’s goal is that “The Human Resource function makes a valuable contribution to the success of the business.”

Communicate the cloud
The cloud is read from left to right, starting with the objective. The initiator of the cloud generally reads the other party’s side first and then his/her side. For example, the bottom side of the evaporating cloud is read from left to right in the following format (see Figure 5):

**In order for** [The Human Resource function to make a valuable contribution to the success of the business], **the company must** [ensure selection of the best available candidate for hiring and promotion]. In order to [ensure selection of the best available candidate for hiring and promotion], **Fred feels pressure to** [make exceptions to the established human resource procedures for hiring and promotion].

The top of the cloud is read the same way, also starting with the objective:

**In order for** [The Human Resource function to make a valuable contribution to the success of the business], **the company must** [ensure fairness in hiring and promotion]. In order to [ensure fairness in hiring and promotion], **Virginia feels pressure to** [follow established human resource procedures for hiring and promotion].
The conflict arrow (between D and D’) is read:

On one hand, Virginia feels pressure to [follow established HR procedures for hiring and promotion]. On the other hand, Fred feels pressure to [make exceptions to the established human resource procedures for hiring and promotion].

Thus, we note that the initiator, Virginia, by reading Fred’s side first, acknowledges the importance of Fred’s action and even attempts to understand the need behind his action. At this point, Fred can clarify, correct or restate his need if he thinks it is necessary. By reading her side, Virginia is stating the action she wants to take and clearly states the need she feels is important to fulfill. Finally, she also states the conflict between the two actions.

Identify assumptions
Once the conflict is fully understood, the next step is to identify the assumptions underlying the five arrows (A-B, A-C, B-D, C-D’, and D-D’). We have listed some possible assumptions for each of the arrows in Table I.

Identifying assumptions for all five arrows (as we have done above) will allow a range of potential solutions, however, to evaporate the cloud it is only necessary to identify assumptions underlying one arrow. We should note that often it is easiest to evaluate an arrow on “my side” of the cloud, i.e. the B-D arrow.

Find an injection (idea) to evaporate the cloud
Evaporating a cloud is accomplished by examining the assumptions for any arrow and determining whether they are invalid, or they can be made invalid by taking a simple action. In the example above, the solution required realizing that the current HR guidelines did not provide sufficient flexibility for the situation and acting on this realization by modifying the HR guidelines to allow flexibility.

In general, a good place to start evaporating the cloud is with the arrow of greatest concern to the initiator; i.e. the connection that the initiator would most like to change. In this case, the arrow that probably concerns Virginia the most is the C-D’ arrow. Since that arrow is on Fred’s side of the cloud and is easier for Fred to break, Virginia looks at her side of the cloud – at the B-D arrow. Let’s assume that Fred agrees with
the statement in B but would nevertheless like to hire Mimi. Looking at the first two assumptions underlying the B-D arrow, both appear to be valid and it isn’t clear that, in general, that we would like to do anything that would invalidate these assumptions. A major purpose of establishing personnel policies is to ensure that important personnel decisions are not based on personal relationships. In addition, a major benefit of establishing personnel policies is to increase both the perception and the reality of fairness in the system.

Although there is not enough detail in the case to determine whether there is already a perception of lack of fairness, let’s assume that the company’s hiring policies are generally viewed as fair and the company would like to preserve that perception. Let’s then look at the third assumption for the B-D arrow: “There is no other set of procedures employees believe would result in fair decisions.” Here it appears there may be some way of meeting the need B while not necessarily complying with D. Would it be possible to communicate the circumstances of this particular hiring decision to all employees who might have an interest in the matter, explain the plan to hire Mimi and the need to move quickly, solicit their comments and hope that they agree that hiring Mimi is a good decision? By communicating with all concerned employees, the CEO would be acknowledging the importance of established policies and his concern for the fairness of personnel decisions. He might even sell them on the idea that hiring Mimi will result in a significant increase in the company’s profitability, thereby resulting in growth and promotional opportunities for all employees.

| A-B | 1. A perception of bias in hiring decisions could result in low morale, which may in turn negatively impact job satisfaction and labor productivity |
|     | 2. Biased hiring decisions may lead to employee grievances and EEOC lawsuits |
|     | 3. Biased hiring decisions could result in negative publicity for the company |
| A-C | 1. The best person from the candidate pool is qualified to do the job |
|     | 2. The success of a business depends on the quality of the employees. |
|     | 3. Success in China is important to the future success of the company |
| B-D | 1. The company’s HR procedures are impersonal, i.e. are not based on personal relationships |
|     | 2. Our established procedures are perceived to be fair |
|     | 3. There is no other set of procedures employees believe would result in fair decisions |
| C-D’ | 1. The main purpose of the established human resource procedures is to comply with EEO guidelines, not necessarily to hire the best person |
|     | 2. The established human resource procedures do not always result in hiring the best candidate |
|     | 3. It is well known that the selection procedures are not 100 percent perfect |
|     | 4. Following established procedures is very time-consuming |
|     | 5. We must move very quickly because Mimi is likely to be recruited by our competitors |
| D-D’ | 1. The established guidelines do not give us enough flexibility for cases in which we have to make a quick decision |

**Proposed solution (injection)**

**Realization**
The urgency of a particular hiring decision in a dynamic global environment may require flexibility.

**Action**
Modify the HR guidelines to provide for management decision flexibility.

Table I. Identifying the assumptions
Validate the proposed action using the future reality tree

The future reality tree (FRT) is a useful stand-alone tool that acknowledges that every solution or idea has potential negative consequences and is used to ensure that the medicine is not worse than the disease. One component of the FRT that is particularly useful as a stand-alone tool is the Negative Branch Reservation (NBR). This tool is used to help determine, prior to execution that a proposed injection will not create more or worse problems than it solves. The NBR also provides a mechanism for key stakeholders to raise concerns related to the suggested idea (or planned change) and to incorporate those changes, thereby increasing the chances of its acceptance by stakeholders.

For example, in the “We Googled You” case, the company’s decision to address the issue of hiring Mimi with concerned employees is an action that invalidates the third assumption under the B-D arrow. An action that is taken to invalidate an assumption and evaporate the conflict cloud is referred to as an injection. Naturally, injections must be thought through very carefully to ensure that they have the intended effect and don’t result in significant new negative consequences. It is frequently the case that an injection will have to be accompanied by other, perhaps minor, actions in order to have the intended effect. For example, the CEO might have Mimi meet with potential coworkers to convince them that she is a great choice for the job.

The NBR is particularly useful for resolving chronic conflicts. A chronic conflict is defined as “a contentious situation that has continued to exist for a prolonged period of time.” (Sullivan et al., 2007, p. 11). For example, in the “We Googled You” case, there are indications of a chronic conflict between Fred and Virginia regarding Fred’s tendency to ignore company policies when making decisions.

Other common workplace conflicts

As we pointed out earlier, the evaporating cloud can be used for any type of conflict, including intra-personal conflicts. We have developed four other conflicts that appear in the case even though resolving these conflicts was not the focus of the case study (see Figures 5-8).

Company’s conflict: This is an example a corporate-level conflict the board of directors is facing and was the focus of original case study.

*Figure 6.* CEO’s cloud
**CEO’s conflict:** This is an example of a potential inter-departmental conflict between the HR department and Attorney’s office: Whether or not to check potential job candidates’ personal histories on Google.

**Mimi’s internal conflict:** This is an example of an intra-personal conflict Mimi can be imagined to face: whether or not to disclose her involvement in political activism.

**Fred Westen’s ethical conflict:** This is another example of an intra-personal conflict the CEO may face, i.e. whether or not to consider his friend’s daughter for a key position. The above discussion of the *We Googled You* case provides a detailed example of two parties in an HR-related conflict and how an evaporating cloud might be used to resolve this conflict (Figure 4). Additionally, we have identified several other conflicts that might exist at Hathaway Jones and represented them as clouds to be evaporated (Figures 5–8). In the next section, we demonstrate how the evaporating cloud supplements the existing literature on conflict management, and adheres to the well-known principles/approaches to resolve workplace conflicts.
Conflict-resolution styles and the evaporating cloud

The following discussion shows that a cloud naturally represents various modes/styles of conflicts (see Figure 2) by using the We Googled You case.

- **Obliging (lose/win):** An example of the obliging style would be Virginia, the vice president in charge of HR, giving in and letting Fred make an exception to established HR procedures. From the TOC perspective, Virginia has a good sense of what both parties want (entities D and D') and just “goes along” with Fred, whose want is stated in entity D'. It is also conceivable that Fred might oblige the HR department and follow established HR procedures to search for the best possible candidate (entity D).

- **Dominating (win/lose):** Fred, the CEO, might impose his decision, i.e. make an exception to established HR procedures and hire Mimi (entity D'), possibly without understanding the need behind his action (entity C). From a TOC perspective, Fred refuses to acknowledge the want and need of Virginia (entities B and D) and simply asserts his authority.

- **Avoiding (lose/lose):** Virginia avoids the issue by simply following Fred's orders. However, this approach may encourage the other party to repeat unwanted behavior or result in more serious issues in the future. From a TOC perspective, as shown in Figure 4, Virginia has a sense of what she wants (entity D) but she does not attempt to identify the other entities (A, B, C, and D'). We believe that managers who have experience with evaporating clouds tend not to demonstrate avoidance behavior but instead will identify the elements (A, B, C, D, D') of conflicts and be in a position to find a solution using the collaborating style.

- **Compromising (partial win-win):** Both Virginia and Fred acknowledge the other party’s wants (entities D and D'). It is also possible that the real needs of both parties are also understood (entities B and C). A compromise solution requires each party to “give and take;” for example, Fred might “win a little” by getting Virginia’s buy-in to hire Mimi; and Virginia might “win a little” by getting Fred’s agreement that Mimi should only be hired on a consulting basis or for a trial period, say six months or a year.

- **Collaborating (win-win):** Both parties’ needs (entities B and C) are satisfied. From the TOC perspective, the initiator, Virginia, can challenge an assumption underlying the B-D arrow (her side of the cloud) and thereby come up with an idea whereby her need (entity B) is satisfied but her want may or may not be. Such a solution, in general, leaves a good impression (e.g. of being a good team player) on the other party because the other party’s need and want are met. However, it should be clear that a more satisfactory or powerful solution can be found by challenging the assumptions under the D-D’ arrow. Such a solution might result in a policy clearly stating the conditions under which each specific action (entities D and D') will be taken now and in the future. In this case, both parties’ needs and wants become part of the policy statement and are enacted when the stated conditions occur.

We hope it is clear that structuring a conflict in the form of a cloud (i.e. identifying and displaying its five elements A, B, C, D and D') and communicating the cloud (i.e. reading the other’s party’s side first) allow the initiator to adopt the collaborating style, which makes it easy for the other party to the conflict to adopt a collaborating style also.
How the evaporating cloud incorporates principled negotiation methods

The EC addresses all four points of principled negotiation developed by Fisher and Ury (1982):

(1) *Separate people from the problem:* Fisher and Ury (1982) recommend that participants in a negotiation “come to see themselves as working side by side, attacking the problem, not each other.” The cloud diagram, as a visual representation of the conflict, allows the participants’ attention to be focused on something other than each other. It becomes much easier to consider the goal – that of reaching agreement—separate from the person one is negotiating with.

(2) *Focus on interests, not positions:* A major source of difficulty in negotiations, and a major cause of outcomes that are unsatisfactory to at least one, if not both, parties, is positional bargaining: bargaining over the parties' stated positions, rather than focusing on ways that both parties’ interests might be met (Fisher and Ury, 1982). In many, if not most, negotiations, the parties’ interests can be achieved in more than one way, but bargaining over positions precludes consideration of alternatives. A major advantage of the EC is that interests must be explicitly stated in the diagram. By clearly stating both parties’ interests, each party is more likely able to achieve its interests rather than having its stated position accepted.

(3) *Generate a variety of possibilities before deciding what to do:* Fisher and Ury point out that positional bargaining often results in limited options for a solution because the parties assume that the outcome will lie along the linear path between the positions, i.e. a compromise. The EC improves on this situation in two ways. First, explicitly considering interests rather than just positions encourages thinking about alternative means of achieving what each party really needs rather than what the parties say they want. As mentioned above, there are frequently many ways to achieve interests. Second, invalidating any assumption underlying an arrow of the cloud results in the resolution of the conflict. Since there are five arrows, with several assumptions behind each, the cloud provides a structured method of directing participants’ attention to opportunities for resolution of the conflict. Another benefit of the EC is that the most promising potential solution would be tested in a future reality tree to ensure that it works and doesn’t result in significant new undesirable effects. If the potential solution passes this test, it would be adopted, as each party would be more satisfied following negotiations than they expected to be when they started the process.

(4) *Insist that the result be based on an objective standard:* Fisher and Ury recommend that either fair standards or a fair procedure be adopted to help in reaching a negotiated settlement. We agree that fair standards or a fair procedure for determining the outcome is helpful when the parties are engaged in positional bargaining, but these approaches really address a need of both parties, that of feeling that the outcome is fair. The strength of the EC, however, is in helping negotiators reach agreements that address both parties’ interests but not necessarily their stated positions and we believe that if each party’s interests are achieved, fairness need not be explicitly addressed. An example of this is the Camp David talks between Israel and Egypt in 1978 concerning
control of the Sinai Peninsula (Pruitt and Rubin, 1985). Egypt’s stated position was that the territory must be returned in its entirety, while Israel, which had taken the Peninsula in the 1967 war, insisted on keeping it. The interests of the two parties, however, were not in conflict. Egypt’s interest was in regaining sovereignty over territory that had historically been part of Egypt, while Israel’s interest was in security from attack by Egypt. The solution allowed both interests to be met: Israel returned the Sinai to Egypt and Egypt agreed to limits on the military forces that could be deployed on the Peninsula, especially within 20-40 km of the border with Israel. It is difficult to see how an objective standard could have been applied to reach this agreement, but the need for such a standard was not necessary as the parties’ interests were met.

Conclusion and future research directions
In this paper, we have attempted to demonstrate that the EC is a simple, structured approach that can be used by leaders, managers, and employees alike to resolve workplace conflicts, whether interpersonal, inter-group, inter-departmental, or inter-organizational. In addition, we have drawn on the workplace conflict literature in order to place the EC in the context of well-known approaches.

Managers are constantly required to address conflicts at various levels in their organizations and therefore seek strategies, tools and approaches to resolve conflicts constructively. While a variety of conflict management styles are found in every organization, the collaborative style is considered the optimal approach as it seeks to develop win/win solutions by satisfying both parties’ interests or needs. The current conflict management literature generally offers guiding principles or “to do” lists to resolve conflicts (e.g. Fisher and Ury, 1982; Cloke and Goldsmith, 2000) and create win-win solutions. The evaporating cloud, on the other hand, offers a simple, structured approach to identifying the conflicting wants or positions of the parties, their associated needs or interests, and a common objective. Perhaps the EC’s greatest strength is that it enables conflicting parties to discover their underlying assumptions and to challenge the validity of the assumptions in order to develop a win-win solution.

The focus of this paper has been on using the evaporating cloud to resolve day-to-day conflicts. We should point out that the evaporating cloud could also be used as the first step in developing a more comprehensive picture of an organizational situation referred to as a current reality tree. Developing a current reality tree requires developing three evaporating clouds and using those as a basis for a “generic cloud” which captures the organization’s core conflict. A useful extension of this paper would be to demonstrate the development of a generic cloud and a current reality tree for the “We Googled You” case.

Research should be directed toward testing the effectiveness of the EC compared to the guidance provided in the current literature. We believe that empirical evidence of the effectiveness of the EC in resolving conflicts will provide managers the necessary motivation to train employees in the use of the EC for resolving workplace conflicts. In addition, as we mentioned earlier, the EC is just one of five thinking process tools that can be used either as an integrated set to address major organizational problems or on a stand-alone basis, which is the approach we have taken in this paper. In particular, integrating the evaporating cloud with the future reality tree should be further explored in further research. The future reality tree is a method of anticipating
unintended consequences of proposed solutions before implementation. Integrating the EC with the future reality tree has the potential to result in more powerful solutions to conflicts.

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Further reading


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