

Principles for Implementing a Potential Solution to the Middle East Conflict

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Introduction

The purpose of this paper is to show how the Analytic Hierarchy Process (AHP) applies mathematics to deal with the most complex problems of the world in a comprehensive and holistic way—in this case the Israeli-Palestinian conflict. This process has been helpful in finding solutions to some of the world's most complex struggles, including those in South Africa and Northern Ireland. But it has not been used extensively to address the Middle East conflict because of the unique aspects of that struggle.

Five years ago, we began preliminary work to organize the excruciatingly difficult issues associated with that six-decades-old confrontation. We began by testing how this *retributive conflict* (one in which both sides profess to desiring a solution but are equally committed to inflicting pain on the other party) could be profitably addressed by the AHP. This paper should serve as an illustration of how mathematics can help quantify the value of tradeoffs through relative scales (priorities derived from pairwise comparison judgments). The reader can find the mathematical foundations of the theory in an article recently published by the first author in these *Notices* in February 2013 [3]; see also [4]. Figure 1 shows a map of Israel and Palestine as the borders currently

exist, as well as the countries which share borders with them. The other figures are self-explanatory.



Figure 1. Israel and Palestine.



Figure 2. The ancient Wailing Wall.

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Figure 3. Palestinian refugee camps in Lebanon.



Figure 4. Israeli settlements in Palestinian lands.



Figure 5. The wall built to prevent Palestinians from entering Israel.

The advantages of the AHP in dealing with conflicts were detailed in our earlier papers [1, 2], but for those unfamiliar with the AHP, suffice it to say that the process creatively decomposes complex issues into smaller and more manageable segments. It also minimizes the impact of unrestrained emotions by imposing a mathematical construct, pairwise comparisons, and prioritization with a numerical ordering of the issues and concessions. Ultimately, the process yields tradeoffs that are

quantitatively developed to equate costs and benefits for each side that ensure a fair solution. No other approach can produce similar outcomes and measure a category of factors, including both tangible and intangible items. All of this can occur without the bloody confrontations that are reflective of the face-to-face negotiations previously used to address this situation.

The intuitive idea behind the AHP is as follows. The AHP uses what is known as a fundamental scale of absolute numbers derived from stimulus-response theory to quantify judgments in making reciprocal pairwise comparisons of elements in a matrix as to dominance with respect to a given property. Using this scale of numbers, priorities of the relative dominance of each element over all the others are then derived using the normalized sum of all the numbers in each row. These numbers indicate how much each element dominates every other element. But all the elements are not equally important. If we knew how important they are, we would use that priority of importance to weight each judgment and then add the weighted numbers in each row and get these priorities back. Not knowing the priorities, we start by assuming that all the elements are equally important and use the same constant number to weight the judgments in each row and add over that row. Doing that, we get a first estimate of the priorities. This estimate comprises the exact priorities when we have measurements. But, when we don't have measurements, we have an estimate of the priorities again used to weight the judgments in each row and sum the weighted numbers in each row to get a new estimate of the priorities of the elements. We stop if the first set of priorities is identical to the second set. Otherwise, we again use this second set of priorities to weight the judgments in each row and add the weighted numbers to get a third estimate. We continue the process until the last estimate of the priorities is close enough for our need for accuracy to the one before it. Now we have the priorities we are looking for. Computing the principal eigenvector does exactly what we just described above.

From individual judgments one derives a representative group judgment by using the geometric mean and also, when necessary, by using the priorities of the wisdom of the judges to raise their quantitative judgments to the power of their priority. This contradicts Arrow's theory which proves the impossibility of combining individual judgments if one uses only " A is preferred to B " or " B is preferred to A ".

A referee observed that *Notices* is about mathematics and the AHP has a very sophisticated mathematics at its core, but space limitations make it hard to dwell both on the details of the AHP and those of the application involved.

Making Peace without Peacemakers

Why has the Middle East conflict proved impervious to all blandishments in every negotiation and to the pressures from internal and external policymakers for so many decades?

It is not because no one has identified a potential solution that would achieve an end to the most complex conflict of our time. Indeed, more presidents, prime ministers, special envoys, journalists, and academics have devoted their time and effort to pursuing success in resolving this problem than perhaps any other modern-day controversy. The truth of the matter is that some of those most closely and intimately involved with the process believe that the outline for the settlement is generally well known and cries out for implementation.

One could say that the closer one comes to a reasonable solution, the less likelihood there seems to be of a commonly accepted willingness to achieve the potential of the work that has been done. The war of words continues to suggest that each side in the Middle East controversy is willing and able to achieve a solution, but when the feet hit the ground, there is always an impediment, a prerequisite, a new complaint, or an aggravating opinion expressed by the other side.

Let us now examine in depth the potential disposition of the parties involved. It seems logical that in any controversy where resources, fiscal and human, are at risk that the parties would inevitably seek peace to benefit their communities and the people they represent. The fact that these parties have been willing to fail to conclude what is fast approaching another hundred-years war must mean that there are factors in place that are not generally spoken about. It is impossible to know exactly whether these factors are or are not at work, but in the interest of transparency, our offering a set of suppositions at least exposes some possible reasons why progress has been so impeded.

The first factor that needs identifying is the difference in power between the parties. While many may deny the impact of the power differential, what seems clear is that most of the power function resides in the Israeli community. The second factor is the supposition that delaying settlement of the controversy has some advantages for both sides. A third factor may be that the Israeli government is so committed to the problem posed for them by Iran that they see this as a higher-priority issue than making immediate peace with the Palestinians. A fourth factor may be a feeling on one or both sides that, in spite of protestations to the contrary, the current American administration is not totally supportive of either the Israeli or Palestinian position. A fifth factor may apply only

to the Palestinian side and relates to the question of a one-state or a two-state solution. While most analysts of the situation believe that only a two-state solution has any chance of a long-lasting peace, there are some who believe that a single state has many advantages, particularly for the Palestinians. Israelis feel that it is totally unacceptable, because birthrate factors will eventually yield a Palestinian majority.

The foregoing factors are purely speculative and may or may not account for the lack of progress in achieving a peaceful solution. For whatever reason, which may include or not include factors noted above, there has been a noticeable reluctance on the part of both sides to extend themselves to achieve peace.

Why Use the Analytic Hierarchy Process

In other applications of the AHP where the problem addressed was the resolution of a conflict, it was not always necessary to go into a second stage of detail to develop an implementation plan. That is, when the final analysis was completed, it was clear what the optimal solution would be based on the judgments of the participants. However, in the case of the Israeli-Palestinian conflict, it seems clear that an agreement as to the optimal solution represents the first stage in a two-stage process.

The question of dissemination of results is a tricky matter. In spite of the willingness of participants to present an agreed-upon outcome to their governments, those currently in charge may resist the process because of a variety of political reasons. It will be a challenge to engage United States or European Union diplomats to apply pressure on the parties to allow the process to be officially condoned using representatives that the leaders appoint. Obviously, there is a long shot that the implementable solution devised by the current participants will be accepted by the respective parties. But, even if it is not, the leaders will be under some pressure to allow the AHP to be used with official blessings. All of this depends on the current Pittsburgh Principles being successfully implemented to yield an acceptable solution, even if it is only one of the possible solutions.

Admittedly, we have been focusing on the process itself rather than on the solution, since the participants were not official representatives of their governments. But their willingness to take the principles and the subsequent implementation agreement to their respective governments to show them that a feasible potential solution exists gives us hope that what we thought would be a virtual solution might actually yield a proposal that can be considered by both governments.

One might ask why it is that so many distinguished politicians and negotiators have failed to

reach consensus after sixty years of trying. Here are some possible reasons:

1. They had no way to measure the importance and value of intangible factors which can dominate the process.
2. They had no overall unifying structure to organize and prioritize issues and concessions.
3. They had no mechanism to trade off concessions by measuring their worth.
4. They had no way to capture each party's perception of the other side's benefits and costs.
5. They had no way to provide confidence to the other party that the opposing party is not gaining more than they are.
6. They had no way to avoid the effect of intense emotions and innuendoes which negatively affect the negotiation process.
7. They had no way to test the sensitivity and stability of the solution to changes in their judgments with respect to the importance of the factors that determined the best outcome.

It is not a coincidence that the Analytic Hierarchy Process addresses each of these reasons in a comprehensive and deliberate way, thus eliminating many of the obstructions for moving forward to identify an equitable solution.

We report here on a meeting of the two sides that was held in Pittsburgh, Pennsylvania, in August 2011. Much to the participants' surprise, the process itself had created an environment in which finding common ground was far more possible than at the beginning of the seminar. The participants began very tentatively to explore the wording of some general principles that would summarize their work together. It should be noted that they were very skeptical that such an outcome could be achieved. After significant discussion they found ten major issues on which they could reach agreement and wording acceptable to each side. Each group worked separately in articulating these principles, and the coordinators of each group went back and forth between the groups to modify the wording of each principle so it was acceptable to the other side. At the end of the seminar they had total agreement on ten principles, which they proudly dubbed the "Pittsburgh Principles".

It seems clear that while we have achieved important milestones in addressing the structure of the conflict and identification of the issues and possible concessions, there remains a complex implementation process that needs to be addressed. In general, the current status of the planning literature has not paid sufficient attention to the crucial task of implementing carefully drawn

plans. It is equally apparent that the "devil" is indeed "in the details". We are optimistic that these participants have developed trust and camaraderie as a result of their week in Pittsburgh wrestling with the AHP. The likelihood of success in coming to agreement on implementation strategies is substantially enhanced as a result of their prior interactions.

In planning for the implementation seminar that we report on here, we intend to take advantage of the expertise of those in both communities who have specialized knowledge of the matters noted in the Principles. These experts will provide written papers, probably often in disagreement, for the participants to review prior to their arriving in Pittsburgh. It will be necessary to engage in a number of AHP analyses before arriving at an agreed-upon implementation plan. This will be a complex and comprehensive initiative but one that will yield a suggested solution to the controversy if these participants had been officially designated by their respective governments.

The Retributive Function and Tradeoffs

Given the entrenchment of both sides, a negotiator has an opportunity in an appropriate setting to call attention to the gap between the perceived benefits and costs of the concessions made by both sides and to help each party to reach a conclusion through the introduction of "bargaining chips". In the negotiation setting, if A and B are participants, then A considers a particular concession not only with respect to the incremental benefit (cost) to A but also the cost (benefit) to B in providing (receiving) the concession. The greater the perceived cost of each concession to B , the greater the value of that concession to A .

Hence A 's gain from a given concession from B may be described as the product of A 's benefits and B 's costs (as perceived by A). We have the following ratios for the two parties A and B :

(According to A 's perceptions)

A 's ratio:

$$\begin{aligned} & \frac{\text{Gain to } A \text{ from } B's \text{ Concession}}{A's \text{ Perception of } B's \text{ Gain from } A's \text{ Concession}} \\ &= \frac{\sum A's \text{ Benefits} \times B's \text{ Costs from } B's \text{ Concession}}{\sum B's \text{ Perceived Benefits} \times A's \text{ Costs from } A's \text{ Concession}} \\ &= \frac{\text{Gain to } A}{\text{Loss to } A} \end{aligned}$$

where \sum is the sum over all the benefits obtained by A in the numerator and by B in the denominator. Hence, given A 's ratio, A 's gain is a product of both the utility benefit received and the cost to B in providing that benefit as described in the numerator of the equation. The total gain to A is diminished by the product of the cost to A in concessions given to B and the perception of the benefit received by B for A 's concessions in the

denominator. A 's benefits and costs are readily measured by A ; however, the costs and gains to B are not readily available to A and are therefore estimated as perceived by A . A expects to have a gain ratio greater than one, which suggests that the gains to A are greater than the perceived benefits to B . Likewise, B expects to have a gain ratio greater than one. For equality in "trade" to be achieved, the two parties should be nearly equal in value, which suggests that the two gain as much as the perceived benefits to and costs of concessions to the other. B 's utility is given by the function:

(According to B 's perceptions)

B 's ratio:

$$\begin{aligned} & \frac{\text{Gain to } B \text{ from } A's \text{ Concession}}{A's \text{ Perception of } A's \text{ Gain from } B's \text{ Concession}} \\ &= \frac{\sum B's \text{ Benefits} \times A's \text{ Costs from } A's \text{ Concession}}{\sum A's \text{ Perceived Benefits} \times B's \text{ Costs from } B's \text{ Concession}} \\ &= \frac{\text{Gain to } B}{\text{Loss to } B} \end{aligned}$$

The measure of equality between the parties in the trade of concessions may be calculated as the ratio of the two ratios.

The retributive gain is the amount that A benefits from making B "pay", while a loss is accounted for by the amount that A "lost" in the negotiation process. Under no circumstance would we expect A to agree to concessions when there is a perceived loss when A has dominance over B . In the case where A has dominance over B , the best that B can do is minimize the disparity in gains.

How to Select Concessions from One Party to Match Concessions from Another Party

To decide how to match the concessions of one party with the concessions from another party we need to first create all possible concession bundles for both parties. A concession bundle is a set of individual concessions. The parties can then trade concession bundles. The problem is that there are many possible concession bundles even when the parties in conflict have a moderately small number of possible concessions. For example, if one party had 13 concessions and another had 14 concessions, there are 8,191 and 16,383 possible concession bundles, respectively. Since we need to match a bundle of one party with all possible bundles of the other party to determine which concession bundle is more advantageous, we need to solve 7,563 matching problems for one party and 14,787 problems for the other party. Were we to do it all at once, the problem would be even more difficult to solve, because the problem would involve $8191 \times 16383 = 134,193,153$ variables. A possible solution is to divide the concessions into groups, such as short, medium, and long-term sets, and then form the bundles.

Let C_A and C_B be the set of concession bundles of two parties A and B in a conflict. Let $c_i(k)$ be the i th concession bundle of party k . Let $p(i, A|j, B)$ be the ratio gain from the i th concession bundle of party A when party B offers the j th concession. Let $q(j, B|i, A)$ be the ratio gain from the j th concession bundle of party B when party A offers the i th concession. Let x_{ij} be a binary variable where $x_{ij} = 1$ if the i th concession bundle of A is matched with the j th concession bundle of B .

Concession bundles from one party can be paired with concession bundles of the other party. Thus, the total gain of party A is given by $\sum_{i \in C_A} \sum_{j \in C_B} p(i, A|j, B)x_{ij}$, and the total gain of party B is given by $\sum_{i \in C_A} \sum_{j \in C_B} q(j, B|i, A)x_{ij}$. To balance both gains

and provide both parties with the maximum gain, we solve a MaxMin problem, i.e., a maximization model whose objective function is an arbitrary variable such that $\sum_{i \in C_A} \sum_{j \in C_B} p(i, A|j, B)x_{ij} \geq x_0$ and

$\sum_{i \in C_A} \sum_{j \in C_B} q(j, B|i, A)x_{ij} \geq x_0$. If all the concessions are matched, then $\sum_{i \in C_A} x_{ij} = 1$ and $\sum_{j \in C_B} x_{ij} = 1$. If

only a subset of $S_A \in C_A$ is matched with C_B , then $\sum_{j \in C_B} x_{ij} = 1$, for $i \in S_A$ and $\sum_{i \in C_A} x_{ij} = 1$. If only a subset $S_A \in C_A$ is matched with a subset $S_B \in C_B$, then $\sum_{j \in C_B} x_{ij} = 1$ for $i \in S_A$ and $\sum_{i \in C_A} x_{ij} = 1$ for $j \in S_B$. Thus, the more general problem is given by:

Max x_0

s.t.,

$$\sum_{i \in C_A} \sum_{j \in C_B} p(i, A|j, B)x_{ij} \geq x_0$$

$$\sum_{i \in C_A} \sum_{j \in C_B} q(j, B|i, A)x_{ij} \geq x_0$$

$$\left| \sum_{i \in C_A} \sum_{j \in C_B} p(i, A|j, B)x_{ij} \sum_{i \in C_A} \sum_{j \in C_B} q(j, B|i, A)x_{ij} \right|''$$

$$\sum_{j \in C_B} x''_{ij} = 1, i \in S_A$$

$$\sum_{j \in C_B} x_{ij} = 0, i \in S_A$$

$$\sum_{i \in C_A} x''_{ij} = 1, j \in S_B$$

$$\sum_{i \in C_A} x_{ij} = 0, j \in S_B$$

$$x_{ij} = 0, 1, i \in C_A \text{ and } j \in C_B$$

Outcomes of the August 2011 Meeting

The details of applying the AHP process to the conflict in South Africa and its implementation, to that in Northern Ireland, and to the Israeli-Palestinian conflict have been outlined in several

articles published over the past several years. For this reason they will not be repeated here. The major difference between the earlier experiments and the August 2011 meeting in Pittsburgh is that the participants in the latest meeting were all residents of either Israel or Palestine and were well known in their communities for their involvement in and knowledge of the multitude of negotiations between the parties. They represented a level of involvement not previously possible in earlier meetings. In addition, the process was carried to a conclusion that yielded principles for an ultimate solution to the problem.

One of the first tasks the participants faced was identifying all possible issues that were required to be addressed, if peace was to be a reality. In earlier experiments with this approach we identified more than a hundred such issues. They were then categorized into a number of groupings. The participants in this meeting reviewed these groupings and added and deleted issues according to their relevance. The final list of issues is shown in Table 1.

We then considered all of the possible concessions that each side might make to address these issues in seeking an acceptable solution. No possible concession was to be ignored, no matter how unlikely it was that one side or the other would agree to such a concession. Participants were free to suggest concessions they could make or the other side could make. This is one of the basic components of the AHP process: namely, that neither side can deny the other side the opportunity to present concessions they feel are relevant to the discussion.

The August 2011 participants were furnished with a list of concessions that earlier meetings had identified, and they were asked to add any other concessions that they could conceive of. When this process was completed, the list of possible concessions for consideration was as in Table 1a.

The listing of issues and possible concessions is only the first step in beginning the AHP process. Eventually the Israeli participants will determine the gains to the Israelis from the Palestinian concessions, the Israeli costs from the Israeli concessions, the Israeli perception of Palestinian costs from Palestinian concessions, and the Israeli perception of Palestinian gains from Israeli concessions. Similarly, the Palestinian participants will determine the Palestinian gains from Israeli concessions, the Palestinian costs from Palestinian concessions, Palestinian perception of Israeli gains from Palestinian concessions, and the Palestinian perception of Israeli costs from Israeli concessions.

The process continues with the participants on each side identifying a set of criteria for their side for each of the four concerns mentioned above.

Each participant makes pairwise comparisons of the criteria as to their importance in serving the goal of that party in deciding on benefits and costs. Then they rate the importance of each concession, one at a time, with respect to each criterion in terms of how strongly it contributes to that criterion.

Table 2 shows how this process works. Participants evaluate each criterion against all the others in terms of the dominance of a criterion on the left with respect to a criterion at the top, here only identified by the number of each criterion on the left. There are five elements in each cell which represent the judgments of the five participants in the same order on the one-to-nine fundamental scale of the AHP. The number "one" in the cell where the criterion is compared with itself automatically represents the judgments of all the participants and could have been shown as five separate "ones". Reciprocals are automatically entered in the position where the first element of a comparison was the second one in an earlier comparison and the second element was the first in the earlier comparison. Thus if *A* dominates *B* five times, then *B* dominates *A* with the reciprocal value 1/5 times. The diagonal itself consists of "ones". This explains why the bottom part below the main diagonal in the table is left blank, because it is understood to be made of reciprocal values to those above the main diagonal.

The next problem is how to combine the five judgments in each cell into a single judgment that represents the group as a whole. The arithmetic mean does not work to combine numbers into a single number whose reciprocal value is equal to one obtained by applying the arithmetic mean to the reciprocal values of those numbers. However, the geometric mean turns out to be the only way to make the reciprocal of a synthesized value of a set of judgments equal to the synthesized value of the reciprocal judgments. Table 3 gives those synthesized values with their reciprocals below the main diagonal. The column on the right gives the priorities of the elements in these comparisons.

The foregoing two tables were developed to obtain priorities for Israeli gains from Palestinian concessions. There are seven other sets of tables, not shown here, from which priorities, as in the last column of the second table mentioned above, are similarly obtained. These priorities are each listed immediately below their criteria on top of each of the following eight tables for the evaluation of concessions. For example, the priority for Integrity and Unity of Israeli Society Post Agreement, is .0753, as shown in Table 3. This same value appears underneath that criterion in Table 4a. Thus the eight tables (Tables 4a-4d, 5a-5d) represent the criteria listed at the top with their priorities listed immediately below them. The priorities of the

criteria in each table sum to 1. The concessions are listed at the left of each table. Under the word "Score" in each of the tables is the column of synthesized priorities of each concession, obtained by weighting the score of the concession in each row by the corresponding priority of that criterion and adding. For example, the score of concession 1 is

$$\begin{aligned} 0.8905 &= 0.95 \times .0753 + 0.78 \times .1636 + 0.49 \\ &\times .0477 + 0.782 \times 0.397 + 0.96 \times .2216 + 0.98 \\ &\times 0.654 + 0.96 \times .0529 + 0.78 \times .0959 + 1.0 \\ &\times .1899 + 0.93 \times .0479. \end{aligned}$$

We have included the full complement of tables so that the reader can trace the origins of the numbers.

Tables 6a and 6b summarize the gains and losses of each side. In each of the columns of scores in the previous tables we divided by the largest entry in that column to obtain the two tables below. Columns four and seven in each table are the product of the two columns to their left multiplied by one thousand to make them more manageable without changing their relative values.

For the Israelis, for example, for a given concession, to trade it with a concession from the Palestinians, we compute the gain-to-loss ratio by multiplying the numbers in the fourth and seventh columns for the Palestinian concession and dividing it by the corresponding product of the fourth and seventh columns of the first table for the Israeli concession. If the ratio is less than one, there is no trade and a zero is assigned to the ratio. If the ratio is more than one, then the trade could take place, provided that the gain-to-loss ratio of the Palestinians is also greater than one and within a reasonably defined percentage from the Israeli ratio. Note that one can do the same for several concessions for one party, but this requires the use of an optimization model to find out how the concessions map against each other.

In the table where the Israeli and Palestinian concessions are matched, the numbers to the right of the concessions correspond to the Israeli and Palestinian ratios, respectively, obtained from Tables 7a and 7b. For example, the Israeli concession "Comply with all UN applicable resolutions" when matched with the Palestinian concession yields a ratio equal to 1.062 located in the (12, 6) position of the Israeli's ratios table. Similarly, the corresponding Palestinian ratio for this concession in the Palestinian's ratios table position (12, 6) yields a value equal to 1.052. These concessions were coupled for tradeoff because their ratios satisfy the closeness criterion of being within no more than 1% of each other. The model [6] produces this result.

Israeli Ratio for (I-12, P-6)):

$$\begin{aligned} &\frac{\text{Gain to I's from P's Concession \#6}}{\text{I's perception of P's gain from I's Concession \#12}} \\ &= \frac{\text{I's benefits } (0.8741) \times \text{I's perception of P's costs } (1)}{\text{I's costs } (0.8596) \times \text{I's perception of P's benefits } (0.9571)} \\ &= \frac{0.8741}{0.8228} = 1.062. \end{aligned}$$

Palestinian Ratio for (P-6, I-12):

$$\begin{aligned} &\frac{\text{Gain to P's from I's Concession \#12}}{\text{P's perception of I's gain from P's Concession \#6}} \\ &= \frac{\text{P's benefits } (0.9787) \times \text{P's perception of I's costs } (0.9075)}{\text{P's costs } (0.90353) \times \text{P's perception of I's benefits } (0.9343)} \\ &= \frac{0.8882}{0.8443} = 1.052. \end{aligned}$$

Similarly, ratios for the tradeoff of all single concessions were computed and matched for their values. Only those that were within 1% of each other were selected. This process yielded a few tradeoffs. The percentage limitation was then extended to 5% and then to 10% and corresponding concessions were selected. The total trading value for each side using these three percentage values yielded virtually equivalent totals, shown at the bottom of Table 8a, indicating that the process performed well.

Once this information was available to the participants, they were then asked to identify the six most important concessions that the other side could make. The Israelis chose the six concessions, they would most like to see the Palestinians make, and the Palestinians chose the six concessions they would most like to see the Israelis make. These are listed in Table 10 according to the numbered order in the list of concessions shown earlier in the paper. This listing is not related to any sort of tradeoff nor with regard to the importance of the concessions. However, the inclusion of any concessions on either side in this listing is indicative of the fact that both sides considered them to be significant concessions. If only one side felt a concession was significant, it was not included in the listing.

The participants in the seminar saw only table 8a. When we finished trading off one concession against another concession, there still remained a number of concessions that had not been traded off. However, it was possible to conclude the analysis by using the one-on-one tradeoffs.

The principal investigators wondered whether bundling two or three concessions together might provide an even more precise outcome to the process. Following the seminar we developed Tables 8b and 8c in a similar way for trading off two and three concessions at a time, respectively. It is significant to note that it can happen in the one-on-one tradeoff procedure that some concessions are not addressed because one or both parties do not consider them important. However, when trading off two against two or

three against three, these concessions add some positive value to the tradeoff. Our analysis suggests that, by including the two-against-two and three-against-three analyses, the process does not yield significantly incremental improvement over the one-on-one process, though it does make use of more concessions and extends the process to its ultimate conclusion. While it is speculative as to whether the final outcome might have changed, it is not the final outcome that we were emphasizing. It was whether or not the AHP process could yield a fair solution to the controversy.

Frequently in conflicts there are controversial issues that one side feels have more significance than the other side does and thus lead to frustration and prolonged disagreement. The AHP provides an opportunity to include many of these issues through bundling to avoid the criticism that these issues are ignored.

Development of the Pittsburgh Principles

The participants carefully considered the information on tradeoffs, which was presented in Table 8a. The majority of concessions were traded off within the limitations of the process. Some were traded off within 1% limitations, and others with 5% and 10% limitations. If this had been an exercise where the participants had been chosen by the principals on each side, the next step would have been to examine the tradeoffs and begin to produce a solution to the controversy. But the participants knew that there remained the major task of addressing implementation issues, which had impeded the success of other peace programs. They felt that, in the absence of an implementation structure, the best they could do was to see if there was any agreement on basic principles.

This discussion began with the participants identifying, in their judgment, the six most crucial concessions that the other side could make. This led to slight changes in wording that did not change the essential meaning of the concessions. The Palestinians identified six concessions which represented particularly important actions on the part of the Israelis. Similarly, the Israelis identified what they thought to be the most important concessions which the Palestinians could make to further the cause of peace. Both Palestinian and Israeli concessions are shown in Table 10.

The participants recognized that, if their work was to be completed, they would need to spend at least another week using the AHP process to create an implementation plan for the Pittsburgh Principles. They indicated that they would like to return to Pittsburgh to complete this work, even though the principal investigators offered them several options closer to their home territory.

Conclusions

It seems clear that, while we have achieved important milestones in addressing the structure of the conflict and identification of the issues and possible concessions, there remains a complex implementation process that needs to be addressed. In general, the current status of the planning literature has not paid sufficient attention to the crucial task of implementing carefully drawn plans. It is equally apparent that the “devil” is indeed “in the details”. We are optimistic that these participants have developed trust and camaraderie as a result of their week wrestling with the AHP. The likelihood of success in coming to agreement on implementation strategies is substantially enhanced as a result of their prior interactions.

In planning for the implementation seminar, we intend to take advantage of the expertise of those in both communities who have specialized knowledge of the matters noted in the Principles. These experts will provide written papers, probably often in disagreement, for the participants to review prior to their arriving in Pittsburgh. It will be necessary to engage in a number of AHP analyses before arriving at an agreed-upon implementation plan. This will be a complex and comprehensive initiative but one that will yield a suggested solution to the controversy if these participants have been officially designated by their respective governments.

The Pittsburgh Principles, which were the ultimate outcome of this experiment, may seem to be a modest statement, but in the eyes of the participants they were a daunting achievement. As one of the participants wrote in assessing his involvement in the seminar:

I participated in quite a few meetings with Palestinians in Palestine, and almost every country in Europe, including Belfast, Northern Ireland. They usually had a similar format: travel for the weekend, meet in a nice place and start talking. Very quickly, the polite conversation includes cynical and insulting comments, and eventually deteriorates to shouting at each other. The discussion ends with the rift as large as it was before the meeting and waiting for the next round of talks to narrow it. We have become “peace talkers”. We keep on talking without anything actually happening. Because of that, when I received the invitation, I was curious but also skeptical. After all, with so many failed attempts, it is difficult to remain optimistic. I told myself that the experiment might be challenging and interesting intellectually. So I accepted the invitation and everything since then is history.

Another participant who could not leave Pittsburgh without expressing his surprise and enthusiasm for the experiences he had undergone wrote to the principal investigators as follows:

I must admit that, before we started, I was skeptical about our chance to develop something serious, but it proved that I was wrong and we did develop a very impressive paper of principles which reflects what both sides accept at a moment of truth and will not accept if it is only to satisfy their political ambitions in front of the street demagoguery. I must congratulate you that your theory worked well. I had been in hundreds of meetings between Israelis and Palestinians where we tried to reach a joint statement but failed because in most of the cases each side was trying to score points and court his own public opinion rather than being objective and try to be real and responsible.

Yet a third participant, after processing what he had been through in the prior week, admitted that he feared that the process would be somewhat academic and removed from the urgency of the moment. He wrote:

After a week with the senior figures you have impressively collected for this program, nothing seems more relevant and influential. This is the most serious engagement Israelis and Palestinian have had (considering the seniority of the political/professional level of participants). It has proven that a structured and fair process, handled by honest mediators, can and should work. The system offers, for the first time in the history of resolving this conflict, a smart way to quantify the emotional intangibles that have hindered past processes and help offset the regular positional bargaining dynamics.

With the kinds of responses noted above, the principal investigators feel emboldened to push forward to complete the final phase of this initiative. The participants represented experienced, significant, informed, and committed representatives of their communities. Their enthusiasm for the process outlined above gives us hope that there are yet new bandages to be applied to old wounds.

Some have said and argued quite convincingly that the time for a two-state solution has either passed or is very close to that position. While there may be several reasons for this argument, some of them seemingly valid, we believe that reducing the options available to the parties is counterproductive to producing a fair solution acceptable to both sides. The basis of the work done so far has rested on the conclusion of a previous

AHP study made by Israelis and Palestinians that a two-state solution has the highest priority. The main danger in suggesting that a two-state solution is no longer an option, no matter how appealing that may be to some people, is that lack of a second viable option poses a serious impediment to the process yielding an equitable outcome to both sides.

Acknowledgment

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Table 1. List of Outstanding Issues Organized by Category.

GEOGRAPHIC and DEMOGRAPHIC ISSUES	POLITICAL ISSUES	POLITICAL ISSUES Behavioral
Access of Palestinians to Available Natural Resources	Accountability and Reasonability of Hamas in the Gaza Strip	Bad Faith Negotiations
Archeological Issues	Agreement on One-State Solution	Compromise
Golan Heights	Agreement on Two-State Solution	Confidence-Building Measures
How to Address the Palestinian Diaspora	AIPAC (American Israel Political Action Committee)	Corruption
How to Resettle Palestinian Refugees	American Politicians	Deception and Manufacturing of History
Immigration	Citizenship Rights of Palestinian Community in Israel	Equal Treatment of All Parties
Palestinian Access to the Mediterranean Sea	Colonialism	Ethnic Cleansing
Palestinian Problem of Split Land Mass between Gaza and the West Bank	Condemnation of Violence as a Tool of Negotiation	Harassment
Population	Control	Human Rights
Problems for Israel in Living in an Ocean of Arab Countries	Denunciation of Irrelevant United Nations Resolutions	Human Shields
Right of Palestinians to Return to Their Homes in Israel	European Acceptance of Responsibility for the Holocaust and Settlement of Israelis in Israel	Intermarriage
Rights of Palestinians to Israeli-Controlled Land	Funding of Terrorism	Learning to Forgive without Forgetting
Status of Israeli Settlements	Historical Legitimacy of Ownership of Land in the Area	Love
Water	How to Deal with Charges of Apartheid	Mutual Recognition of Rights of Each Party
ECONOMIC and BUSINESS ISSUES	International Relationships	Nonviolence
Compensation for Victims of Terrorism	Islamic State	Psychological Barriers
Compensation to Palestinians for Loss of Land	Jewish Refugee Issues	Psychological Damage
Dealing with Property Confiscation Issues	Mutual Compensation	Racism
Economic Choices	Problems Associated with Hamas	Recognition of the Holocaust
How to Resettle Palestinian Refugees	Residency Rights	Recognition of the Nakba Condition
Restitution	Role of the Druze in Negotiations	Religious Fundamentalism
EDUCATION ISSUES	Sovereignty	Representation of Women in the Negotiations
Education	Status of Israel	Respect
Incitement in the Educational School System	Status of Jerusalem	Subjugation and Humiliation
Indoctrination	Status of Palestinian Authority	Suicide Bombers
Industrial Parks	Status of Ramallah	Trust
Lack of Creativity and Problem Solving	Syrian Accommodation for Settlement of Palestinian Refugees	MILITARY ISSUES
Language Training	SOCIAL ISSUES	Arms Smuggling
Stolen Culture	Basic Human Needs	Disarmament
SECURITY ISSUES	RELIGIOUS and IDEOLOGICAL ISSUES	House Demolition
Bombing of Israeli Children	Armageddon	Invasion
Gilad Shalit (Release of Prisoners)	Christian Zionism (Evangelists)	Missile Building
Safe Passage	Holy Places	Nuclear Responsibility
Safety and Security	Jewish Zionism	War Crimes
Terrorism	Palestinian Christians	LEGAL ISSUES
The Wall	Religious Prophecy	International Law
		Prisoners

Table 1a

Israelis'	
Concessions	Description
1	Abandon the idea of a Jewish state
2	Accept Palestinian full control of the borders of the Palestinian state and its outlets
3	Accept the historical responsibility for the Palestinian refugee problem
4	Accept the Palestinian refugees' right to return
5	Accept to abide by the status quo in the holy places in Jerusalem
6	Accept to abolish the law of return
7	Accept to respect the integrity of the West Bank and Gaza by allowing free and safe passage between the two areas
8	Accept East Jerusalem as the capital of the Palestinian state
9	Accept a two-state solution on the borders of June 4, 1967
10	Allow all parties to have equal access to and control of religious sites and holy places
11	Allow the sharing of all natural resources between Palestinians and Israelis
12	Comply with all applicable UN resolutions
13	Evacuate settlers of Jewish settlements on land claimed by the Palestinians with or without compensation
14	Release all political prisoners, including those who are Israeli citizens
15	Share Jerusalem as two capitals of two states
16	Solve the Palestinian refugee problem in a just and agreed-upon manner
17	Stop incitement by the religious and national education and religious leaders in Israel against Muslims and Arabs and guarantee the rights of Israeli minorities
Palestinians'	
Concessions	Description
1	Accept mutually agreed-upon land swap
2	Accept settlers under Palestinian sovereignty as residents
3	Accept the temporary presence of a multinational military monitoring system in the Jordan Valley
4	Accept a two-state solution
5	Accept a two-state solution which includes a noncontiguous state
6	Acknowledge Israel's existence as a Jewish state
7	Acknowledge Israel's existence as an independent state
8	Agree to compromise on the demand of the right of return
9	Agree with Palestinian demilitarized state
10	Preserve the status quo in the holy places of Jerusalem
11	Allow Israel to use Palestinian airspace
12	Declare against Iranian nuclear development
13	Denounce and rein in violence
14	Denounce Iranian pursuit of nuclear arms and support Israeli effort to remove the threat
15	Lobby Arab states to allow both Israelis and Palestinians to have the right to return to their land of origin
16	Compromise on the status of Jerusalem
17	Guarantee that any agreement reached with Israel will be accepted and supported by the majority of the Palestinian people, both in Gaza and the West Bank
18	Refrain from and work against any anti-Israel sentiments in Palestinian schools
19	Seek assistance for a legitimate settlement of refugees
20	Share natural resources
21	Work cooperatively and in active engagement with Israel

Table 2. Values Assigned by Five Israeli Participants.

		1	2	3	4	5	6	7	8	9	10
1	Integrity and Unity of Israeli Society Post Agreement										
2	Security	1/8, 1/3, 1/4, 1/5, 3	3, 5, 5, 1, 1	3, 5, 4, 1/2, 3	1/8, 1, 1, 1/7, 1/3	1, 5, 1, 1/3, 1	2, 5, 5, 1/4, 1/5	2, 1, 2, 1/5, 1	1/8, 1/7, 1/3, 1/7, 3	1/3, 5, 3, 1/5, 5	
3	Strengthening the Alliance with the United States		1, 2, 3, 5, 2, 5	2, 7, 7, 4, 2	1/4, 1, 1/2, 1/3, 1/2	7, 9, 1, 5, 1	7, 7, 7, 4, 1	1, 2, 1/3, 1, 3	1/3, 1, 1, 2, 2	1, 9, 4, 4, 5	
4	Make Israel more Attractive to Jewish Diaspora and Israeli Citizens			1, 2, 1, 1, 1, 4	1/8, 1/3, 1/8, 1/8, 5	1, 3, 1, 5, 2, 1/5	3, 3, 3, 1, 1/5	2, 1/3, 1/4, 1/5, 1/3	1/5, 1/7, 1/3, 1/4, 1/5	1/2, 1, 1, 1/5, 1	
5	End of Claims				1, 1/5, 1/7, 1/8, 1/8, 1/3	2, 3, 1/8, 1/2, 1	2, 3, 2, 1/2, 1/5	1/4, 1/5, 1/3, 1/6, 1	1/5, 1/6, 1/3, 1/5, 1	1/4, 5, 1/5, 1/4, 3	
6	Legitimization of the State of Israel					1, 4, 9, 1, 5, 1	3, 9, 7, 5, 3	3, 2, 2, 3, 5	1/4, 1/3, 1/2, 3, 1	5, 9, 6, 9, 3	
7	Stop being Occupiers						1, 1, 1, 1, 3, 1	1, 1/7, 1, 1, 3	1/3, 1/3, 1/2, 1/3, 3	1, 1/2, 5, 1, 1/3	
8	Peace, Prosperity and Stability in Region							1, 1/2, 1, 1/4, 1, 5	1, 1/7, 1/7, 1/4, 1	1/4, 1, 1/5, 2, 5	
9	Maintain the Jewish Majority of Israel Alongside the Arab Minority								1, 1/3, 1, 1/4, 1/2, 1	2, 5, 2, 4, 1	
10	Weakening the Radical Forces in the Middle East Headed by Iran									1, 7, 7, 3, 5, 5	

Table 3. The Geometric Means and Derived Priorities in the Last Column.

		1	2	3	4	5	6	7	8	9	10	Priorities
1	Integrity and Unity of Israeli Society Post Agreement	1	1/2.759	2.371	2.46	1/2.787	1.108	1.201	1/1.046	1/3.117	1.38	0.0753
2	Security		1	3.129	3.792	1/2.169	3.16	4.241	1/1.149	1.059	3.728	0.1636
3	Strengthening the Alliance with the United States			1	1.516	1/3.219	1/1.33	1/1.401	1/2.46	1/4.618	1/1.585	0.0477
4	Make Israel more Attractive to Jewish Diaspora and Israeli Citizens				1	1/5.827	1/1.217	1/1.037	1/3.245	1/3.393	1/1.398	0.0397
5	End of Claims					1	2.825	4.904	2.825	1/1.516	5.923	0.2216
6	Legitimization of the State of Israel						1	1.246	1/1.185	1/1.783	1/1.496	0.0654
7	Stop being Occupiers							1	1/1.099	1/2.874	1/1.149	0.0529
8	Peace, Prosperity and Stability in Region								1	1/1.888	2.402	0.0959
9	Maintain the Jewish Majority of Israel Alongside the Arab Minority									1	5.165	0.1899
10	Weakening the Radical Forces in the Middle East Headed by Iran										1	0.0479
										Inconsistency	0.027	

Table 4a. Israeli Benefits from Palestinian Concessions.

		Score	Integrity and Unity of Israeli Society Post Agreement	Security	Strengthening the Alliance with the United States	Make Israel more Attractive to Jewish Diaspora and Israeli Citizens	End of Claims	Legitimization of the State of Israel	Stop being Occupiers	Peace, Prosperity and Stability in Region	Maintain the Jewish Majority of Israel Alongside the Arab Minority	Weakening the Radical Forces in the Middle East Headed by Iran
1	Accept mutually agreed upon land swap	0.8905	0.95	0.78	0.49	0.782	0.96	0.98	0.96	0.78	1	0.93
2	Accept settlements under Palestinian sovereignty as residents	0.225	0.54	0.028	0.42	0.252	0.064	0.242	0.274	0.144	0.42	0.242
3	Accept the temporary presence of multinational military monitoring system in Jordan Valley	0.6783	0.372	0.92	0.9	0.84	0.78	0.78	0.88	0.94	0.094	0.94
4	Accept Two-State Solution	0.9591	0.91	0.84	0.94	0.96	1	1	0.98	1	1	0.95
5	Acceptance of a Two-State solution which includes a Non-Contiguous State	0.7275	0.292	0.68	0.91	0.76	0.62	0.78	0.91	0.83	0.88	0.78
6	Acknowledge Israel's Existence as a Jewish State	0.8431	0.98	0.272	0.86	1	1	0.96	0.78	0.95	1	0.78
7	Acknowledge Israel's Existence as an Independent State	0.7769	0.236	0.224	0.78	0.82	1	1	0.73	0.93	1	1
8	Agree to Compromise to the Demand of the Right of Return	0.9645	1	0.91	0.93	0.88	1	0.98	0.93	0.93	1	0.98
9	Agreeing with Palestinian demilitarized state for a limited time period	0.5756	0.26	0.65	0.92	0.78	0.65	0.652	0.71	0.88	0.106	0.96
10	Preserve the Status Quo in the Holy places of Jerusalem	0.6781	0.502	0.172	0.94	0.94	0.94	0.98	0.89	0.98	0.384	0.91
11	Allow Israel to use Palestinian airspace	0.6358	0.7	0.98	0.91	0.76	0.78	0.63	0.45	0.6	0.046	0.94
12	Declare Against Iranian Nuclear Development	0.3827	0.422	0.322	0.94	0.5	0.222	0.83	0.028	0.76	0.046	0.98
13	Denounce & Reign in Violence	0.5935	0.79	0.81	0.94	0.76	0.47	0.89	0.176	0.89	0.126	0.95
14	Denounce Iranian pursuit of nuclear arms and support Israelis effort to remove the threat	0.4791	0.722	0.53	0.94	0.5	0.39	0.84	0.046	0.76	0.046	1
15	Lobby Arab States to Allow both Israelis and Palestinians to Have the Right to Return to their land of origin	0.1938	0.076	0.046	0.462	0.334	0.192	0.304	0.124	0.254	0.224	0.194
16	Make Compromise on the Status of Jerusalem	0.8923	0.96	0.5	0.96	0.91	0.96	0.96	0.96	1	0.98	1
17	Palestinians must guarantee that any agreement reached with Israel will be accepted and supported by the majority of the Palestinian people both in Gaza and the West Bank	0.8238	0.93	0.71	0.89	0.95	0.98	0.98	0.69	0.96	0.53	0.98
18	Refrain and work against any anti-Israel sentiments in Palestinian schools	0.7314	0.65	0.75	0.84	0.79	0.83	0.95	0.68	0.94	0.402	0.83
19	Seek Assistance for a Legitimate Settlement of Refugees Anywhere Except Israel	0.9232	0.94	0.76	0.96	0.98	1	0.95	0.95	0.88	0.98	0.81
20	Sharing of Natural Resources	0.3925	0.028	0.384	0.62	0.29	0.52	0.58	0.57	0.73	0.106	0.272
21	Work Cooperatively and in active engagement w/ Israel	0.7343	0.434	0.84	0.94	0.68	0.86	0.89	0.92	0.94	0.304	0.98

Table 4b. Israeli Costs from Israeli Concessions.

		Score	Integrity and Unity of Israeli Society Post Agreement	Security	Strengthening the Alliance with the United States	Make Israel more Attractive to Jewish Diaspora and Israelis Citizens	End of Claims and End of Conflict	Legitimization of the State of Israel	Stop being Occupiers	Peace, Economy and Stability in Region	Maintain the Jewish Majority of Israel Alongside with the Arab Minority	Weakening the Radical Forces in the Middle East Headed by Iran
			.0659	.1831	.0457	.0322	.2093	.0778	.0477	.0860	.2249	.0274
1	Abandon the Idea of Jewish State	0.9204	1	1	0.94	1	1	1	0	0.98	1	0
2	Accept Palestinian full control of the borders of the Palestinian State and its outlets	0.5932	0.84	0.98	0.452	0.66	0.272	0.76	0	0.37	0.75	0
3	Accept the historical responsibility for the Palestinian refugee problem	0.8331	0.98	0.85	0.98	0.96	0.85	0.96	0	0.93	0.91	0
4	Accept the Palestinian refugee rights to return	0.8716	0.98	0.95	0.284	1	0.98	0.98	0	0.95	1	0
5	Accept to abide by the status quo in the holy places in Jerusalem	0.1805	0.172	0.352	0.174	0.29	0.046	0.094	0	0.192	0.24	0
6	Accept to abolish law of return	0.8122	1	0.452	0.73	1	1	1	0	1	1	0
7	Accept to respect the integrity of the West Bank and Gaza by allowing free and safe passage between the two areas.	0.1826	0.39	0.47	0.076	0.154	0.046	0.082	0	0.082	0.175	0
8	Accept East Jerusalem as the capital of the Palestinian State	0.7638	1	0.7	0.076	0.76	0.96	0.94	0	0.89	0.85	0
9	Accept Two-State Solution on the borders of the 4th of June 1967	0.0502	0.252	0.094	0.01	0.094	0.028	0.01	0	0.046	0.01	0
10	Allow all parties to have equal access to and control of religious sites and holy places	0.0926	0.3	0.142	0.046	0.262	0.046	0.028	0	0.082	0.078	0
11	Allow the sharing of all natural resources between Palestinians and Israelis	0.1031	0.172	0.162	0.028	0.26	0.076	0.046	0	0.082	0.115	0
12	Comply with all applicable UN Resolutions	0.7912	0.92	0.91	0.692	0.722	0.68	0.89	0	0.91	0.975	0
13	Evacuate settlers of Jewish settlements on land claimed by the Palestinians with or without compensation	0.3307	0.72	0.39	0.028	0.37	0.452	0.452	0	0.5	0.115	0
14	Release all political prisoners including those who are Israeli citizens	0.4766	0.7	0.94	0.064	0.63	0.47	0.75	0	0.67	0.093	0
15	Share Jerusalem as two capitals of two states	0.1503	0.55	0.174	0.064	0.45	0.028	0.046	0	0.094	0.21	0
16	Solve the Palestinian refugee problem in a just and agreed upon manner	0.1662	0.58	0.254	0.076	0.046	0.094	0.112	0	0.22	0.13	0
17	Stop incitement by the religious and national education and religious leaders in Israel against Muslims and Arabs	0.0682	0.162	0.156	0.046	0.112	0.028	0.028	0	0.01	0.064	0

Table 4c. Israeli Perception of Palestinian Costs from Palestinian Concessions.

		Score	Giving up on the Idea of a Greater Palestine	Remainder of part of the Settlement Community	Loss of 'Victim' Status	Loss of Land (67 Border) / Swap	Loss of International Financial Support	Partial Control of East Jerusalem as the Capital of Palestine	Partial Solution of Refugee Problem	Partial Control of the Muslim Holy Places
			.0880	.0964	.0288	.1500	.0252	.1735	.3101	.1280
1	Accept mutually agreed upon land swap	0.3888	0	0	0	0.7	0	0.354	0.632	0.206
2	Accept settlements under Palestinian sovereignty as residents	0.2903	0	0	0	0.94	0	0.404	0.224	0.076
3	Accept the temporary presence of multinational military monitoring system in Jordan Valley	0.0677	0	0	0	0.322	0	0.028	0.028	0.046
4	Accept Two-State Solution	0.1016	0	0	0	0.174	0	0.124	0.028	0.354
5	Acceptance of a Two-State solution which includes a Non-Contiguous State	0.1843	0	0	0	0.254	0	0.302	0.144	0.384
6	Acknowledge Israel's Existence as a Jewish State	0.612	0	0	0	0.482	0	0.91	0.93	0.73
7	Acknowledge Israel's Existence as an Independent State	0.3792	0	0	0	0.562	0	0.7	0.414	0.352
8	Agree to Compromise to the Demand of the Right of Return	0.5237	0	0	0	0.79	0	0.094	0.96	0.712
9	Agreeing with Palestinian demilitarized state for a limited time period	0.0828	0	0	0	0.322	0	0.064	0.064	0.028
10	Preserve the Status Quo in the Holy places of Jerusalem	0.2053	0	0	0	0.076	0	0.502	0.064	0.68
11	Allow Israel to use Palestinian airspace	0.0671	0	0	0	0.354	0	0.01	0.028	0.028
12	Declare Against Iranian Nuclear Development	0.0213	0	0	0	0.028	0	0.028	0.028	0.028
13	Denounce & Reign in Violence	0.0685	0	0	0	0.094	0	0.194	0.028	0.094
14	Denounce Iranian pursuit of nuclear arms and support Israelis effort to remove the threat	0.0271	0	0	0	0.046	0	0.046	0.028	0.028
15	Lobby Arab States to Allow both Israelis and Palestinians to Have the Right to Return to their land of origin	0.2242	0	0	0	0.176	0	0.094	0.554	0.076
16	Make Compromise on the Status of Jerusalem	0.3807	0	0	0	0.514	0	0.94	0.094	0.87
17	Palestinians must guarantee that any agreement reached with Israel will be accepted and supported by the majority of the Palestinian people both in Gaza and the West Bank	0.3215	0	0	0	0.352	0	0.602	0.302	0.552
18	Refrain and work against any anti-Israel sentiments in Palestinian schools	0.1145	0	0	0	0.094	0	0.058	0.24	0.124
19	Seek Assistance for a Legitimate Settlement of Refugees Anywhere Except Israel	0.5339	0	0	0	0.762	0	0.224	0.98	0.6
20	Sharing of Natural Resources	0.0333	0	0	0	0.108	0	0.028	0.028	0.028
21	Work Cooperatively and in active engagement w/ Israel	0.1137	0	0	0	0.126	0	0.176	0.156	0.124

Table 4d. Israeli Perception of Palestinian Benefits from Israeli Concessions.

		Score	Freedom, Dignity and Feeling of Equality	Independent State	Evacuation of the Settlers in the Settlements	International Recognition & Permanent Borders	Maximization of the Area (Land)	Economic Stability and Prosperity	East Jerusalem as the Capital of Palestine	Solve the Refugee Problem	Control of the Muslim Holy Places
1	Abandon the Idea of Jewish State	0.7252	.1449	.2145	.0661	.0368	.0816	.0219	.1361	.2128	.0853
2	Accept Palestinian full control of the borders of the Palestinian State and its outlets	0.5538	.096	.084	.0	.0	.0	.0	.088	.098	.091
3	Accept the historical responsibility for the Palestinian refugee problem	0.1962	.096	.1	.0	.0	.0	.0	.039	.056	.032
4	Accept the Palestinian refugee rights to return	0.5985	.037	.024	.0	.0	.0	.0	.11	.036	.003
5	Accept to abide by the status quo in the holy places in Jerusalem	0.5985	.096	.083	.0	.0	.0	.0	.035	.1	.024
6	Accept to abolish law of return	0.392	.074	.030	.0	.0	.0	.0	.094	.009	.085
7	Accept to respect the integrity of the West Bank and Gaza by allowing free and safe passage between the two areas.	0.3104	.071	.014	.0	.0	.0	.0	.009	.072	.013
8	Accept East Jerusalem as the capital of the Palestinian State	0.3734	.090	.084	.0	.0	.0	.0	.030	.008	.006
9	Accept Two-State Solution on the borders of the 4th of June 1967	0.5851	.093	.094	.0	.0	.0	.0	.1	.014	.096
10	Allow all parties to have equal access to and control of religious sites and holy places	0.595	.091	.070	.0	.0	.0	.0	.093	.078	.024
11	Allow the sharing of all natural resources between Palestinians and Israelis	0.386	.089	.032	.0	.0	.0	.0	.066	.008	.095
12	Comply with all applicable UN Resolutions	0.2069	.058	.040	.0	.0	.0	.0	.008	.008	.009
13	Evacuate settlers of Jewish settlements on land claimed by the Palestinians with or without compensation	0.6941	.086	.091	.0	.0	.0	.0	.081	.096	.070
14	Release all political prisoners including those who are Israeli citizens	0.6465	.095	.098	.0	.0	.0	.0	.096	.063	.039
15	Share Jerusalem as two capitals of two states	0.3467	.094	.087	.0	.0	.0	.0	.005	.006	.005
16	Solve the Palestinian refugee problem in a just and agreed upon manner	0.4371	.068	.053	.0	.0	.0	.0	.075	.022	.088
17	Stop incitement by the religious and national education and religious leaders in Israel against Muslims and Arabs	0.5315	.080	.081	.0	.0	.0	.0	.011	.100	.016
		0.0805	.034	.006	.0	.0	.0	.0	.003	.005	.005

Table 5a. Palestinian Benefits from Israeli Concessions.

		Score	Permanent Borders	Sovereign Palestinian State	Share of Water and Other resources	Resolution of the refugee problem	Shared Control of Jerusalem and Holy Places	International guarantees and protection of Palestine State security and integrity	Evacuation of the Israeli settlements	Having full control over air space, maritime, borders and outlets	Release of political prisoners including those who are Israeli citizens	Respect the integrity of the West Bank and Gaza	Stop incitement and raging hatred	East Jerusalem as the capital of the State of Palestine
1	Abandon the Idea of Jewish State	0.8333	.083	.091	.009	.079	.066	.084	.094	.087	.065	.093	.045	.086
2	Accept Palestinian full control of the borders of the Palestinian State and its outlets	0.9288	.093	.098	.081	.068	.094	.089	.096	.096	.071	.098	.053	.098
3	Accept the historical responsibility for the Palestinian refugee problem	0.8981	.094	.087	.09	.092	.089	.092	.098	.081	.082	.095	.084	.09
4	Accept the Palestinian refugee rights to return	0.8341	.071	.069	.032	.087	.084	.063	.093	.084	.076	.087	.05	.091
5	Accept to abide by the status quo in the holy places in Jerusalem	0.7519	.076	.069	.025	.084	.078	.089	.076	.063	.076	.078	.06	.087
6	Accept to abolish law of return	0.5122	.053	.032	.04	.058	.035	.04	.055	.05	.04	.07	.047	.075
7	Accept to respect the integrity of the West Bank and Gaza by allowing free and safe passage between the two areas.	0.9237	.093	.092	.08	.081	.092	.09	.09	.096	.089	.098	.078	.096
8	Accept to withdraw from East Jerusalem	0.9389	.1	.098	.071	.083	.09	.087	.096	.086	.08	.096	.065	.098
9	Accept Two-State Solution on the borders of the 4th of June 1967	0.9228	.098	.098	.055	.084	.063	.087	.098	.094	.089	.098	.078	.094
10	Allow all parties to have equal access to and control of religious sites and holy places	0.7561	.076	.078	.073	.065	.084	.073	.084	.078	.045	.06	.068	.081
11	Allow the sharing of all natural resources between Palestinians and Israelis	0.6282	.053	.06	.086	.06	.063	.078	.08	.073	.068	.078	.039	.083
12	Comply with all applicable UN Resolutions	0.9245	.091	.089	.092	.094	.087	.086	.096	.095	.09	.1	.092	.096
13	Evacuate settlement of Jewish settlers on land claimed by the Palestinians with or without compensation	0.8741	.089	.079	.081	.092	.092	.081	.098	.089	.079	.092	.073	.091
14	Release all political prisoners including those who are Israeli citizens	0.7068	.084	.065	.071	.078	.055	.078	.081	.055	.098	.079	.084	.063
15	Share Jerusalem as a religious and political center with all parties	0.7954	.08	.071	.073	.07	.087	.074	.087	.078	.089	.089	.05	.089
16	Solve the Palestinian refugee problem in a just and agreed upon manner	0.8341	.079	.082	.074	.096	.09	.087	.093	.084	.088	.092	.05	.079
17	Stop incitement by the religious and national education and religious leaders in Israel against Muslims and Arabs	0.3881	.029	.042	.055	.04	.044	.045	.027	.035	.037	.04	.093	.044

Table 5b. Palestinian Costs from Palestinian Concessions.

		Score	Conflict between Palestinian diaspora and the internal leadership	Giving up the claim over historic Palestine occupied in 1948 and known later as the State of Israel	Partial loss/depletion of natural resources by sharing them with Israel	Loss of military capability to defend the State of Palestine	Territorial loss as a result of unfair land swap	Accommodation and rehabilitation of Palestinian refugees not allowed to return to Israel	Restrictions on national sovereignty by accepting demilitarization and multinational monitoring	Loss of property rights	Dislocation and fragmentation of Palestinian social fabric
1	Accept mutually agreed upon land swap	0.6178	.0	.086	.087	.0	.1	.096	.0	.0	.0
2	Accept settlers under Palestinian sovereignty as residents	0.5866	.0	.091	.073	.0	.089	.096	.0	.0	.0
3	Accept the temporary presence of multinational military monitoring system in Jordan Valley	0.5353	.0	.081	.045	.0	.096	.087	.0	.0	.0
4	Accept Two-State Solution	0.5629	.0	.086	.071	.0	.084	.096	.0	.0	.0
5	Acceptance of a Two-State solution which includes a Non-Contiguous State	0.5576	.0	.092	.088	.0	.071	.087	.0	.0	.0
6	Acknowledge Israel's Existence as a Jewish State	0.597	.0	.092	.066	.0	.098	.094	.0	.0	.0
7	Acknowledge Israel's Existence as an Independent State	0.5706	.0	.092	.06	.0	.086	.1	.0	.0	.0
8	Agree to Compromise on the Right of Return	0.6144	.0	.092	.094	.0	.092	.09	.0	.0	.0
9	Agreeing with Palestinian demilitarized state for a limited time period	0.5761	.0	.098	.079	.0	.079	.087	.0	.0	.0
10	Preserve the Status Quo in the Holy places of Jerusalem	0.5082	.0	.087	.05	.0	.087	.065	.0	.0	.0
11	Allow Israel to use Palestinian airspace	0.5919	.0	.093	.086	.0	.093	.076	.0	.0	.0
12	Declare Against Iranian Nuclear Development	0.3649	.0	.081	.042	.0	.027	.073	.0	.0	.0
13	Denounce & Reign in Violence	0.4545	.0	.081	.076	.0	.048	.074	.0	.0	.0
14	Denounce Iranian pursuit of nuclear arms and support Israelis effort to remove the threat	0.3369	.0	.071	.065	.0	.013	.068	.0	.0	.0
15	Lobby Arab States to Allow both Israelis and Palestinians to Have the Right to Return to their land of origin	0.5365	.0	.086	.083	.0	.066	.094	.0	.0	.0
16	Make Compromise on the Status of Jerusalem	0.6608	.0	.1	.098	.0	.098	.1	.0	.0	.0
17	Palestinians must guarantee that any agreement reached with Israel will be accepted and supported by the majority of the Palestinian people both in Gaza and the West Bank	0.383	.0	.084	.05	.0	.035	.06	.0	.0	.0
18	Refrain and work against any anti-Israel sentiments in Palestinian schools	0.4858	.0	.085	.076	.0	.063	.066	.0	.0	.0
19	Seek Assistance for a Legitimate Settlement of Refugees except Israel	0.5697	.0	.1	.074	.0	.076	.089	.0	.0	.0
20	Sharing of Natural Resources	0.5391	.0	.076	.074	.0	.089	.081	.0	.0	.0
21	Work Cooperatively and in active engagement w/ Israel	0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Table 5c. Palestinian Perception of Israeli Benefits from Palestinian Concessions.

		Score	Gaining legitimacy of the Palestinian and Arab and Muslim World	Integration in the Middle East with normal relations with its neighbors and Arab World	End of claims by the Palestinians	Obtaining security by acceptance and recognition of the Palestinians and Arab and Muslim World	Sharing the Palestinians with their own natural resources	Obtaining territorial gains	Economic relations and new markets including tourism with neighboring Arab and Islamic countries	Reduction of military expenditures enabling national development	Regional cooperation against external threats	Acknowledgement of Israeli control over the Walling Wall and the Jewish Quarter in the Old City of Jerusalem
		Score	0.1111	0.0658	0.2556	0.108	0.0215	0.1184	0.0999	0.0239	0.0333	0.1626
1	Accept mutually agreed upon land swap	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
2	Accept settlements under Palestinian sovereignty as residents	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
3	Accept the temporary presence of multinational military monitoring system in Jordan Valley	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
4	Accept Two-State Solution	0.5617	0.82	0.00	0.92	0.84	0.00	0.00	0.00	0.00	0.00	0.86
5	Acceptance a Two-State solution which includes a Non-Contiguous State	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
6	Acknowledge Israel's Existence as a Jewish State	0.5867	0.94	0.00	0.90	0.86	0.00	0.00	0.00	0.00	0.00	0.98
7	Acknowledge Israel's Existence as an Independent State	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
8	Agree to Compromise to the Demand of the Right of No Return	0.6009	0.94	0.00	0.96	0.91	0.00	0.00	0.00	0.00	0.00	0.94
9	Agreeing with Palestinian demilitarized state for a limited time period	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
10	Preserve the Status Quo in the Holy places of Jerusalem	0.1463	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90
11	Allow Israel to use Palestinian airspace	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
12	Declare Against Iranian Nuclear Development	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
13	Denounce & Reign in Violence	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
14	Denounce Iranian pursuit of nuclear arms and support Israelis effort to remove the threat	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
15	Lobby Arab States to Allow both Israelis and Palestinians to Have the Right to Return to their land of origin	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
16	Make Compromise on the Status of Jerusalem	0.6278	0.98	0.00	0.98	0.98	0.00	0.00	0.00	0.00	0.00	1.00
17	Palestinians must guarantee that any agreement reached with Israel will be accepted and supported by the majority of the Palestinian people both in Gaza and the West Bank	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
18	Refrain and work against any anti-Israeli sentiments in Palestinian schools	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
19	Seek Assistance for a Legitimate Settlement of Refugees	0.2454	0.00	0.00	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	Sharing of Natural Resources	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20
21	Work Cooperatively and in active engagement w/ Israel	0.1255	0.20	0.00	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.20

Table 5d. Palestinian Perception of Israeli Costs from Israeli Concessions.

		Score	Changing of Zionist narrative	Property restitution and compensation	Settlements evacuation	Rehabilitating evacuated settlers from the Palestinian territories
		Score	.4541	.0689	.2723	.2047
1	Abandon the Idea of Jewish State	0.8198	0.98	0	0.79	0.78
2	Accept Palestinian full control of the borders of the Palestinian State and its outlets	0.8226	0.92	0	0.81	0.9
3	Accept the historical responsibility for the Palestinian refugee problem	0.6633	0.76	0	0.71	0.61
4	Accept the Palestinian refugee rights to return	0.8055	0.92	0	0.86	0.75
5	Accept to abide by the status quo in the holy places in Jerusalem	0.642	0.65	0	0.68	0.79
6	Accept to abolish law of return	0.6273	0.73	0	0.5	0.78
7	Accept to respect the integrity of the West Bank and Gaza by allowing free and safe passage between the two areas.	0.7665	0.84	0	0.76	0.87
8	Accept East Jerusalem as the capital of the Palestinian State	0.8205	0.92	0	0.87	0.81
9	Accept Two-State Solution on the borders of the 4th of June 1967	0.7687	0.83	0	0.89	0.73
10	Allow all parties to have equal access to and control of religious sites and holy places	0.4622	0.4	0	0.79	0.32
11	Allow the sharing of all natural resources between Palestinians and Israelis	0.4453	0.37	0	0.68	0.45
12	Comply with all applicable UN Resolutions	0.7683	0.76	0	0.9	0.87
13	Evacuate settlers of Jewish settlements on land claimed by the Palestinians with or without compensation	0.8466	0.91	0	0.96	0.84
14	Release all political prisoners including those who are Israeli citizens	0.551	0.55	0	0.55	0.74
15	Share Jerusalem as two capitals of two states	0.6209	0.76	0	0.81	0.27
16	Solve the Palestinian refugee problem in a just and agreed upon manner	0.7767	0.84	0	0.82	0.84
17	Stop incitement by the religious and national education and religious leaders in Israel against Muslims and Arabs	0.4225	0.42	0	0.34	0.68

Table 6a. Summary for Israelis.

	See Table 1b	See Table 1d		See Table 2a	See Table 2d	
Concessions	Israelis' Costs	Israelis' Perception of Palestinians' Benefits	Israelis' Total Loss	Palestinians' Benefits	Palestinians' Perception of Israelis Costs	Palestinians' Total Gain
	(1)	(2)	(1)*(2)*1000	(3)	(4)	(3)*(4)*1000
1	1	1	1000.00	0.8830	0.9683	855.03
2	0.6445	0.7637	492.18	0.9894	0.9717	961.31
3	0.9051	0.2705	244.88	0.9574	0.7835	750.15
4	0.9470	0.8253	781.53	0.8830	0.9515	840.11
5	0.1961	0.5405	106.01	0.7979	0.7583	605.05
6	0.8824	0.4280	377.70	0.5426	0.7410	402.01
7	0.1984	0.5149	102.15	0.9787	0.9054	886.12
8	0.8299	0.8068	669.54	1	0.9692	969.17
9	0.0545	0.8205	44.75	0.9787	0.9080	888.67
10	0.1006	0.5323	53.55	0.8085	0.5459	441.41
11	0.1120	0.2853	31.96	0.6702	0.5260	352.52
12	0.8596	0.9571	822.76	0.9787	0.9075	888.20
13	0.3593	0.8915	320.31	0.9255	1	925.53
14	0.5178	0.4781	247.56	0.7553	0.6508	491.59
15	0.1633	0.6027	98.42	0.8511	0.7334	624.17
16	0.1806	0.7329	132.34	0.8830	0.9174	810.08
17	0.0741	0.1110	8.23	0.4149	0.4991	207.05

Table 6b. Summary for Palestinians.

	See Table 1b	See Table 1d		See Table 2a	See Table 2d	
Concessions	Israelis' Costs	Israelis' Perception of Palestinians' Benefits	Israelis' Total Loss	Palestinians' Benefits	Palestinians' Perception of Israelis Costs	Palestinians' Total Gain
	(1)	(2)	(1)*(2)*1000	(3)	(4)	(3)*(4)*1000
1	1	1	1000.00	0.8830	0.9683	855.03
2	0.6445	0.7637	492.18	0.9894	0.9717	961.31
3	0.9051	0.2705	244.88	0.9574	0.7835	750.15
4	0.9470	0.8253	781.53	0.8830	0.9515	840.11
5	0.1961	0.5405	106.01	0.7979	0.7583	605.05
6	0.8824	0.4280	377.70	0.5426	0.7410	402.01
7	0.1984	0.5149	102.15	0.9787	0.9054	886.12
8	0.8299	0.8068	669.54	1	0.9692	969.17
9	0.0545	0.8205	44.75	0.9787	0.9080	888.67
10	0.1006	0.5323	53.55	0.8085	0.5459	441.41
11	0.1120	0.2853	31.96	0.6702	0.5260	352.52
12	0.8596	0.9571	822.76	0.9787	0.9075	888.20
13	0.3593	0.8915	320.31	0.9255	1	925.53
14	0.5178	0.4781	247.56	0.7553	0.6508	491.59
15	0.1633	0.6027	98.42	0.8511	0.7334	624.17
16	0.1806	0.7329	132.34	0.8830	0.9174	810.08
17	0.0741	0.1110	8.23	0.4149	0.4991	207.05

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NOTICES OF THE AMS

Table 8a. One-to-one concessions.

# Israeli Concessions	Trade Value		# Palestinian Concessions	Trade Value
12 Comply with all applicable UN Resolutions	1.06	1%	6 Acknowledge Israel's Existence as a Jewish State	1.05
9 Accept Two-State Solution on the borders of the 4th of June 1967	5.08	5%	5 Acceptance a Two-State solution which includes a Non-Contiguous State	5.26
Accept to respect the integrity of the West Bank and Gaza by allowing free and 7 safe passage between the two areas.	4.88	5%	7 Acknowledge Israel's Existence as an Independent State	5.13
16 Solve the Palestinian refugee problem in a just and agreed upon manner	4.43	5%	1 Accept mutually agreed upon land swap	4.33
Evacuate settlers of Jewish settlements on land claimed by the Palestinians with 13 or without compensation	4.61	5%	19 Seek Assistance for a Legitimate Settlement of Refugees	2.75
11 Allow the sharing of all natural resources between Palestinians and Israelis	2.3	10%	15 Lobby Arab States to Allow both Israelis and Palestinians to Have the Right to Return to their land of origin	2.17
15 Share Jerusalem as two capitals of two states	4.56	10%	17 Palestinians must guarantee that any agreement reached with Israel will be accepted and supported by the majority of the Palestinian people both in Gaza and the West Bank	5.38
10 Allow all parties to have equal access to and control of religious sites and holy places	2.64	10%	18 Refrain and work against any anti-Israel sentiments in Palestinian schools	3
Stop incitement by the religious and national education and religious leaders in 17 Israel against Muslims and Arabs	1.68	10%	12 Declare Against Iranian Nuclear Development	1.87
8 Accept East Jerusalem as the capital of the Palestinian State	1.28	10%	8 Agree to Compromise to the Demand of the Right of Return	1.09
Accept Palestinian full control of the borders of the Palestinian State and its 2 outlets	5.43	1%	2 Accept settlers under Palestinian sovereignty as residents	5.41
5 Accept to abide by the status quo in the holy places in Jerusalem			16 Make Compromise on the Status of Jerusalem	
	37.95			37.44

Table 8b. Two-to-two concessions.

# Israeli Concessions	Trade Value	# Palestinian Concessions	Trade Value
9 Accept Two-State Solution on the borders of the 4th of June 1967	20.19	6 Acknowledge Israel's Existence as a Jewish State	20.25
16 Solve the Palestinian refugee problem in a just and agreed upon manner		21 Work Cooperatively and in active engagement w/ Israel	
Accept to respect the integrity of the West Bank and Gaza by allowing free			
7 and safe passage between the two areas.	10.95	1 Accept mutually agreed upon land swap	11.05
Allow all parties to have equal access to and control of religious sites and		Denounce Iranian pursuit of nuclear arms and support Israelis effort to remove	
10 holy places		14 the threat	
Evacuate settlers of Jewish settlements on land claimed by the		Palestinians must guarantee that any agreement reached with Israel will be	
13 Palestinians with or without compensation	9.88	accepted and supported by the majority of the Palestinian people both in Gaza	9.83
15 Share Jerusalem as two capitals of two states		17 and the West Bank	
Accept Palestinian full control of the borders of the Palestinian State and		19 Seek Assistance for a Legitimate Settlement of Refugees	
2 its outlets	9.82	9 Agreeing with Palestinian demilitarized state	9.89
Stop incitement by the religious and national education and religious			
17 leaders in Israel against Muslims and Arabs		12 Declare Against Iranian Nuclear Development	
Allow the sharing of all natural resources between Palestinians and	7.37	3 Jordan Valley	7.45
11 Israelis		10 Preserve the Status Quo in the Holy places of Jerusalem	
12 Comply with all applicable UN Resolutions	5.43	2 Accept settlers under Palestinian sovereignty as residents	5.46
5 Accept to abide by the status quo in the holy places in Jerusalem		16 Make Compromise on the Status of Jerusalem	
8 Accept East Jerusalem as the capital of the Palestinian State			
3 Accept the historical responsibility for the Palestinian refugee problem	4.3	7 Acknowledge Israel's Existence as an Independent State	4.34
6 Accept to abolish law of return		8 Agree to Compromise to the Demand of the Right of Return	
	67.94		68.27

Table 8c. Three-to-three concessions.

# Israeli Concessions	Trade Value	# Palestinian Concessions	Trade Value
7 Accept to respect the integrity of the West Bank and Gaza by allowing free and safe passage between the two areas.	33.07	10 Preserve the Status Quo in the Holy places of Jerusalem	33.07
8 Accept East Jerusalem as the capital of the Palestinian State		17 Palestinians must guarantee that any agreement reached with Israel will be accepted and supported by the majority of the Palestinian people both in Gaza and the West Bank	
17 Stop incitement by the religious and national education and religious leaders in Israel against Muslims and Arabs		21 Work Cooperatively and in active engagement w/ Israel	
2 Accept Palestinian full control of the borders of the Palestinian State and its outlets	18.66	13 Denounce & Reign in Violence	18.73
9 Accept Two-State Solution on the borders of the 4th of June 1967		Denounce Iranian pursuit of nuclear arms and support	
13 Evacuate settlers of Jewish settlements on land claimed by the Palestinians with or without compensation		14 Israelis effort to remove the threat	
4 Accept the Palestinian refugee rights to return	15.62	19 Seek Assistance for a Legitimate Settlement of Refugees	15.69
11 Allow the sharing of all natural resources between Palestinians and Israelis		7 Acknowledge Israel's Existence as an Independent State	
12 Comply with all applicable UN Resolutions		12 Declare Against Iranian Nuclear Development	
1 Abandon the Idea of Jewish State	10.35	18 Refrain and work against any anti-Israel sentiments in Palestinian schools	11.02
5 Accept to abide by the status quo in the holy places in Jerusalem		1 Accept mutually agreed upon land swap	
10 Allow all parties to have equal access to and control of religious sites and holy places		3 Accept the temporary presence of multinational military monitoring system in Jordan Valley	
3 Accept the historical responsibility for the Palestinian refugee problem	8.88	11 Allow Israel to use Palestinian airspace	
15 Share Jerusalem as two capitals of two states		2 Accept settlers under Palestinian sovereignty as residents	8.86
16 Solve the Palestinian refugee problem in a just and agreed upon manner		6 Acknowledge Israel's Existence as a Jewish State	
6 Accept to abolish law of return	2.32	9 Agreeing with Palestinian demilitarized state	
14 Release all political prisoners including those who are Israeli citizens		5 Acceptance a Two-State solution which includes a Non-Contiguous State	2.38
	88.9	16 Make Compromise on the Status of Jerusalem	89.75

Table 9. The Pittsburgh Principles.

Israeli-Palestinian Pittsburgh Declaration of Principles August 2011	
1	A Two-Sate Solution on the borders of the 4th of June 1967, with mutually agreed upon land swaps
2	Israel must respect the integrity of the West Bank and Gaza by allowing free and safe passage between the two areas, and the Palestinian State must guarantee that any agreement reached with Israel will be accepted and supported by the majority of the Palestinian people both in Gaza and the West Bank.
3	East Jerusalem will be the capital of the Palestinian State. The parties will maintain the Status Quo of the Holy places in Jerusalem
4	Acknowledge Israel's Existence as a Jewish Sate without jeopardizing the rights of its minority Israeli citizens
5	Evacuation of Israeli settlers from the Palestinian territories that are not included in the landswaps
6	Palestinian full control of the borders of the Palestinian State and it outlets, and deployment of a temporary agreed upon multinational military monitoring system in the Jordan Valley.
7	Solve the Palestinian refugee problem in a just and agreed upon manner
8	A demilitarized Palestinian state
9	Agreed upon international monitoring mechanism and agreed upon binding international arbitration mechanisms
10	The full implementation of these principles concludes the end of the conflict and the claims of the two parties

Table 10. The Set of Six Most Important Concessions.

#	Israeli Concessions	#	Palestinian Concessions
2	Accept Palestinian full control of the borders of the Palestinian State and its outlets	1	Accept mutually agreed-upon land swap
7	Accept to respect the integrity of the West Bank and Gaza by allowing free and safe passage between the two areas	3	Accept the temporary presence of a multinational military monitoring system in Jordan Valley
8	Accept East Jerusalem as the capital of the Palestinian State	6	Acknowledge Israel's existence as a Jewish state
9	Accept a Two-State Solution on the borders of the 4th of June, 1967	9	Agree with a Palestinian demilitarized state
13	Evacuate settlers of Jewish settlements on land claimed by the Palestinians, with or without compensation	10	Preserve the status quo in the holy places of Jerusalem
16	Solve the Palestinian refugee problem in a just and agreed upon manner	17	Guarantee that any agreement reached with Israel will be accepted and supported by the majority of the Palestinian people both in Gaza and the West Bank