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***A PROCEDURE FOR  
DIVORCE SETTLEMENTS***

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## **A Procedure for Divorce Settlements**

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## Abstract

A dispute-resolution procedure called Adjusted Winner (AW), which is applicable to two-party negotiations over the division of multiple items, is described and applied to divorce cases, one hypothetical and the other real (from New York state). AW involves the parties' allocating 100 points over the items to be divided, with a referee or mediator assigning them to each party after an "equitability adjustment," which may involve the splitting or sharing of one item.

AW satisfies several desirable properties. Among others, it awards to each party the same number of points over 50 in such a way that both cannot do better by swapping items. Because it is difficult to manipulate, it will induce each party to make honest assessments of the worth of each item to itself.

AW would probably have prevented posturing in the hypothetical divorce case. In the real case, it would have led to a more satisfying outcome, especially for the wife. AW would still leave lawyers and mediators with important roles to play in advising their clients on how best to use it, especially with respect to expressing effectively their interests and having them reflected in the settlement.

*JEL Classification:* C78. *Keywords:* Bargaining; mediation; fair division; divorce.

# A Procedure for Divorce Settlements<sup>1</sup>

## 1. Introduction

Bargaining theory, especially in economics, has proved singularly inapplicable to the settlement of real-life disputes. This is true despite the attempts made by a number of theorists to demonstrate the contributions that rigorous models have made to understanding real-life conflicts and prescribing solutions (Raiffa, 1982; Lax and Sebenius, 1986; Brams, 1990).

The major reason for this failure, in our opinion, has been the almost total separation of bargaining theories—and, on the more applied side, “negotiation analysis” (Sebenius, 1992; Young, 1991)—from theories of fair division (Young, 1994). Thus, for example, we know of no practical fair-division schemes that have been applied to two-party negotiations over the resolution of multiple issues or the division of multiple items, such as the marital property in a divorce.

We will describe one such procedure in section 2, called Adjusted Winner (AW), and illustrate its application to two divorce cases, one hypothetical and one real (from New York State).<sup>2</sup> But first we list AW’s striking properties:

- **envy-freeness:** neither party will envy the items that the other party receives because it will think the value of its items is more than 50%

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<sup>2</sup>Technical details of AW are given in Brams and Taylor (1996, ch. 4), where other fair-division procedures and applications (e.g., to land division) are analyzed. The application of AW to the illustrative example and to the two divorce cases given in this article is adapted from Brams and Taylor (1996, chs. 4 and 5, © Cambridge University Press 1996, parts of which are reprinted with the permission of Cambridge University Press), where AW’s application to the Panama treaty negotiations between the United States and Panama in the 1970s is also discussed. Other applications of AW to politics include Brams and Togman (1996) and Denoon and Brams (1996).

of the total;

- **equitability:** each party will think that the value it receives is greater *by the same amount* over 50% as the value the other party receives;
- **efficiency:** both parties cannot benefit by a swap of items—if one party does better, the other must do worse;
- **strategyproofness:** it is difficult for one party to exploit the other (in a sense to be made precise later).

Keeney and Raiffa (1991), in the absence of a procedure for ensuring an efficient settlement, propose that the parties to a dispute first work out an “acceptable” settlement, though they leave vague what this means. They suggest that a third party (“contract embellisher”) might then make adjustments in the original settlement that moves it toward efficiency—again without saying exactly how—in what Raiffa (1985, 1993) calls a “post-settlement settlement.”

By contrast, AW guarantees efficiency, as well as envy-freeness and equity, *at the start*. Thus, the issue for the parties is whether it is “safe” to buy into a procedure that can, in principle, be exploited. We will show that AW is, for all practical purposes, essentially nonmanipulable.

For mediators, the use of AW enhances client self-determination in two ways: it induces the disputants to make their own decisions about the distribution of their property, and it helps to uncover their interests, not merely their positions. The examples that follow will illustrate how AW engages disputants both in the valuing and the dividing of their property.

## 2. Adjusted Winner (AW)

There are two parties and multiple items that need to be divided, which we will call *goods*. We assume that each party can quantify the relative

importance of each good to itself by distributing a total of 100 points over all the goods.

Although AW will work for any number of goods, for purposes of illustration let us assume that there are  $n$  goods,  $G_1, \dots, G_n$ , and two players (Bob and Carol). Each player independently allocates a total of 100 points to the goods, indicating the worth of each to himself or herself. The players then submit their point assignments to a referee or mediator, who assigns the goods in the following manner (the computation can be done on a computer):

1. Bob temporarily “wins” those goods on which he put more points, and Carol wins those on which she put more points.
2. If the total number of points that each player wins is the same, then they are done—except possibly for dividing the goods on which they put the same numbers of points (more on this later).
3. Assume Bob wins more points than Carol. Then he will give back to Carol goods (or parts of goods) in a certain order until both players have exactly the same number of points. This transfer is called the *equitability adjustment*.
4. The giveback starts with the good having the smallest ratio of Bob’s points to Carol’s, then goes to the good with the next-smallest ratio, and so on.

### **Example**

Suppose there are three goods ( $G_1, G_2, G_3$ ) to which Bob and Carol make the following point assignments (the larger of the two assignments is underscored):

	G <sub>1</sub>	G <sub>2</sub>	G <sub>3</sub>	Total
Bob's points	<u>6</u>	<u>67</u>	27	100
Carol's points	5	34	<u>61</u>	100

Initially, G<sub>1</sub> and G<sub>2</sub> are assigned to Bob, giving him 73 of his points, and G<sub>3</sub> is assigned to Carol, giving her 61 of her points. Hence, goods must be transferred from Bob to Carol to create equitability.

Notice that the ratio of Bob's points to Carol's on the two goods he wins is smaller on G<sub>1</sub> ( $6/5 = 1.2$ ) than on G<sub>2</sub> ( $67/34 \cong 1.97$ ), so the transfer begins with G<sub>1</sub>. But even transferring all of G<sub>1</sub> from Bob to Carol still leaves Bob with an advantage (67 of his points to 66 of hers). Hence, we next must transfer some of G<sub>2</sub>, as well, to Carol to create equitability.

Let  $x$  denote the fraction of G<sub>2</sub> that will be retained by Bob, with the rest transferred from him to Carol. We choose  $x$  so that the resulting point totals are equal for Bob (left side of the equation) and Carol (right side of the equation):

$$67x = 61 + 5 + 34(1 - x),$$

which yields  $x = 100/101 \cong .99$ . Consequently, Bob ends up with 99% of G<sub>1</sub> for a total of 66.3 of his points, whereas Carol ends up with all of G<sub>1</sub> and G<sub>3</sub>, and 1% of G<sub>2</sub>, for the same total of 66.3 of her points.<sup>3</sup>

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<sup>3</sup>The reader can check that if the first transfer had been part of G<sub>2</sub> instead G<sub>1</sub> to Carol, both players would have received 65.0 of their points and hence have fared worse. How transferring part of an indivisible good, like a house, might be accomplished will be discussed later. For now we note that an equitability adjustment never requires the splitting or sharing of more than one good (G<sub>2</sub> in this case). We also note that AW can be modified to reflect unequal shares to which the parties might be entitled (e.g., 2/3 to Bob, 1/3 to Carol), which in our example can be accomplished by giving Bob both G<sub>1</sub> and G<sub>2</sub> and  $x$  proportion of G<sub>3</sub>, with  $1 - x$  proportion of G<sub>3</sub> going to Carol. To ensure that Bob receives twice as many points as Carol does, we set his points (left side of equation) equal to twice her points (right side of equation in brackets):

$$67 + 6 + 27x = 2[61(1 - x)].$$

Equitability is built into AW by construction (i.e., through the equitability adjustment of the points of the two players). Envy-freeness follows from the fact that each player will wind up with at least 50 of his or her points, although this is not completely obvious and requires a technical argument. More difficult to show is the efficiency of AW, which depends on two things: (1) we start with an efficient distribution (giving each player all the goods he or she most values); and (2) we make the equitability adjustment in the prescribed order (i.e., based on the smallest-ratio criterion). From these facts we can demonstrate that it is impossible to help both players with a different allocation, including one that is not equitable.

Note that envy-freeness and equitability both address the question of whether one player believes he or she did as well as the other player. The difference is that envy-freeness involves a comparison based on one's own valuation, which is captured by the following question:

Are you better off with your allocation and, hence, would not desire to swap with the other player?

Equitability, on the other hand, involves an interpersonal comparison:

Is your valuation of what you received equal to the other player's valuation of what he or she received?

The equitability adjustment, which gives each player 66.3 of his or her points in our example, may be interpreted as providing each player with what he or she perceives to be nearly  $2/3$  of the total value of all three goods.

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Solving for  $\alpha$  yields  $x \cong .33$ , which gives Bob 81.8 points (15.1 points above 66.7) and Carol 40.9 points (7.6 points above 33.3). Hence, both players receive about 23% more points than their entitlements, ensuring equitability, which is somewhat less than the 33% gain (16.3 points above 50) that each realizes when their entitlements are 50-50.

We caution, however, that the equalization of the players' values assumes that points are "additive" and "linear." *Linearity* means roughly that  $p\%$  of a good is twice as good as  $p/2\%$ , and *additivity* means that the value of two or more goods to a player is equal to the sum of their points.<sup>4</sup>

A potential drawback of AW is that, in theory, it may fail to induce the players to be truthful about their valuations. This is easy to illustrate, even in the case of two goods. Suppose Bob values the goods equally, and Carol knows that he will truthfully announce his 50-50 valuation. Suppose Carol's true valuation is 70-30. What should she announce? Assuming that the players' announced valuations must be integers, the answer is 51-49.

The result of this announcement will be an initial allocation of all of  $G_1$  to Carol (which she values at 70), and all of  $G_2$  to Bob (which he values at 50). Then there will be a transfer of only a trivial fraction ( $1/101$ ) of  $G_1$  to Bob, since Carol's initial advantage is only 51 to 50. Carol will thereby end up with a generous  $70 - 0.7 = 69.3$  of her points, whereas Bob will realize only  $50 + 0.5 = 50.5$  of his points, based on their true valuations.

Bob can turn the tables on Carol if he knows her valuation of 70-30 and that she will announce it. If Bob announces 69-31, there will be a transfer of  $39/139$  of  $G_1$  from Carol to Bob, giving him a total of  $50 + 14.0 = 64.0$  of his points and her only  $70 - 19.6 = 50.4$  points, based on their true valuations.

Clearly, one player (with complete information) can exploit another player (without such information). On the other hand, if both players were

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<sup>4</sup>How one might define goods (or issues) in a dispute so as to satisfy these assumptions is discussed in Brams and Taylor (1996) and Raiffa (1982), among other places. It is a task that lawyers and mediators in divorce cases could assist their clients in doing.

truthful in their announcements, there would be a transfer of  $1/6$  of  $G_1$  from Carol (70-30) to Bob (50-50), giving each player 58.3 points.

But this theoretical vulnerability of AW turns out not to be a real one in almost all conceivable conflict situations. We next illustrate this point with two divorce cases.

### **3. A Hypothetical Divorce Settlement**

Divorces—probably more than any other kind of dispute—cry out for better settlement procedures. AW seems especially well suited to the allocation of marital property in divorces.

Divorces may be not only bitter and rancorous but also very costly to the two parties as lawyers' fees accumulate. Such a simple dispute-resolution procedure as AW may not please some divorce lawyers, but we believe both lawyers and mediators may be able to use it to their advantage, which we shall say more about in the final section.

Although AW would seem best suited for reaching a quick and reasonable settlement of the property in a divorce, a large indivisible item like a house could pose a problem, especially if both sides value it about equally. If the house represents more than 50% of the value for both parties, then it is not clear—short of selling it—how AW could be applied.

But divorce agreements may involve not just the allocation of material property but also the future compensation of one party by the other. Such compensation over a sufficiently long period of time, if available, may well balance out the immediate gain that one party receives from obtaining, say, the house. In addition, compromises on matters like custodial or visitation rights, if there are children, may be another tradeoff that can be included to facilitate the achievement of equitability under AW.

To illustrate how AW might be used in a divorce settlement, consider the hypothetical case of Tom and Mary presented in *Negotiating to Settlement in Divorce* (1987, pp. 166-169), a manual for lawyers. There are three major issues to be resolved, with the preferences of Tom and Mary on each recounted below (quotations are taken from the case):

### 1. Custody

*Tom:* “Tom wants to be seen as vigorously trying to obtain sole custody of [their son] John . . . [so that] no one will ever be able to convince John that his father did not put up a fight for sole custody. In fact, Tom would prefer joint custody, and, if pushed, would admit to being willing not to have custody at all, provided that he could have flexible and extensive visitation rights. . . [He will] concede the question of sole custody *only as a last resort*” [italics in original] (p. 167).

*Mary:* “John’s great grandfather established a trust now worth several million dollars . . . [that will] be distributed to [the] . . . great-grandchildren . . . provided that they have been raised ‘in the manner and tradition of the McCrees.’ Apart from John, there is only one other great grandchild, Miles, the son of Mary’s sister. Mary and her sister have not spoken for years. Their animosity is so great that Mary knows that given the slightest opportunity, her sister will do anything she can to frustrate John’s claim to the trust capital. Mary is concerned that if Tom gets custody—even joint custody—of John, Mary’s sister will argue that John was not raised [properly]. Accordingly, . . . [Mary wants] to do everything possible to obtain sole custody . . . [and] may not settle [otherwise]” (p. 168).

## 2. Alimony

*Tom:* “Tom is adamant [against] . . . his having to pay alimony, because ‘she will always be coming back for more.’ At very worst, he would accept having to pay a ‘small’ amount of alimony provided he could be assured that it was not modifiable and would only be payable for a fixed, ‘short’ period” (p. 167).

*Mary:* “Mary is furious that Tom wants to leave her just when the money is starting to come in [Tom is about to graduate from law school], after what she sees as all her hard work. Thus Mary’s [desire is to] . . . ‘take him for every cent [she] can get’” (p. 168).

## 3. House

*Tom:* “Tom would like to keep the house. At any rate, he feels he is entitled to \$10,000 of the equity, representing his grandfather’s gift, and half of any equity beyond that” (p. 167).

*Mary:* “Mary . . . does want to continue to live in the house” (p. 168).

On the basis of these preferences, Tom and Mary might plausibly make the following point assignments, with the larger of the two assignments underscored:

	<i>Custody (sole)</i>	<i>Alimony</i>	<i>House</i>	<i>Total</i>
Tom	25	<u>60</u>	<u>15</u>	100
Mary	<u>65</u>	25	10	100

These reflect Mary's great interest in obtaining sole custody, Tom's in minimizing if not avoiding altogether paying alimony, and the lesser interest of each in gaining possession of the house.<sup>5</sup>

Under AW, Mary would win sole custody of John, whereas Tom would get his way on alimony and, initially, get the house. However, because Tom ends up with 75 points and Mary only 65 points after the assignment of points to the winners on each issue, Tom must give back points on the house, which has a smaller ratio of Tom's points to Mary's points ( $15/10 = 1.5$ ) than does alimony ( $60/25 = 2.4$ ).

Equitability will be achieved when Tom's points and Mary's points are set equal, with Tom getting the fraction  $x$  of the house and Mary getting the fraction  $1 - x$ . Solving

$$60 + 15x = 65 + 10(1 - x)$$

for  $x$  gives  $x = 3/5$ . Thus, Tom is entitled to somewhat more than half the house and Mary somewhat less. In terms of points, Tom will get  $60 + 9$ , and Mary  $65 + 4$ , or 69 points each. This total is greater than that in our earlier example (66.3 points), because in this case the parties have almost opposite preferences on the two major issues, enabling them both to do better in getting the things they want.

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<sup>5</sup>We readily admit that the players in this case as well as the real divorce case we discuss next could make other plausible numerical point assignments. Indeed, each side might do "sensitivity analysis" to see how its own assignments might affect the outcome for different possible assignments of the other side. In this hypothetical case, since Mary puts a great premium on custody, and Tom on alimony, it is only the house on which they are likely to come out reasonably close, with perhaps Mary ending up putting more points on it than Tom (unlike in our example). But relatively small variations in their point assignments would not alter the fact that the house would remain the item on which an equitability adjustment is made. Hence, we conclude that custody and alimony in this case are insensitive to small point variations, but who gets what share of the house is affected by such variations.

Curiously, the house in this example is the least important item for both disputants. Whoever retains it will presumably have to compensate the other party for its fractional share. Which person is entitled to the  $3/5$  share should probably be kept secret until both parties are able to hammer out an agreement on what winning this proportion means, in terms of a settlement, when each is either the  $3/5$  or  $2/5$  party.<sup>6</sup>

The authors of this hypothetical divorce case, it is worth noting, threw in some interesting twists that we did not mention previously. First, Tom is having an affair with a fellow law student, Kate, whom he has “no wish to marry or live with . . . after his divorce” (p. 166). Nonetheless, he does not want Mary to find out about Kate, which he thinks is “quite possible if the matter is not settled before trial” (p. 166). Moreover, if his affair should become public in the course of the trial, Tom fears that his career as a lawyer will be jeopardized if not ruined.

Since the break-up of their marriage, Mary “has become involved with another man, and she thinks this relationship has the possibility of maturing into something permanent” (pp. 168-169). Moreover, even before Tom and Mary’s marriage had broken up, “some of [Mary’s] friends thought they saw Tom with his arm around another woman. However, it was some distance away, and the friends were not absolutely sure it was Tom” (p. 169).

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<sup>6</sup>After Tom and Mary submit their point assignments, and the calculation described in the text is made by the referee or mediator, we suggest the following protocol: Tom and Mary would be told by the referee that the house is the item on which an equitability adjustment must be made. It will be “split” 3:2 between them—in terms of one party’s having to compensate the other for its share—but they would not be told who is entitled to the larger share. Given this protocol, Tom and Mary would, we believe, be motivated to come to an agreement on what being the 3 “winner” and 2 “loser” mean, because each would want to protect himself or herself in either contingency. If such compensation is infeasible, the house might be sold and the proceeds split 3:2, which would be easy because of the divisibility of money.

This spicy information, if found out by the other party, would probably not alter the point allocations of Tom and Mary that we posited earlier. It is likely, however, to impel them to try to expedite settlement of their case.

What is ironic in this case is Tom's apparent need to exhibit his strong concern for the welfare of his son, John. But in fact Tom is ready to cede sole custody of John to Mary. In actual negotiations, Tom would presumably posture on the custody issue in order to extract as much as possible on the alimony issue.

Such posturing becomes problematic under AW, because if Tom places too many points on custody, he might lose on alimony, which is his big worry. AW, as we see it, would largely eliminate posturing of this sort, because it is "hard" points that count in the end rather than "soft"—and perhaps insincere—concerns one might try to use to advance one's bargaining position.<sup>7</sup>

In this sense, AW is like a modern-day King Solomon, at least insofar as it renders false claims—like that of the impostor in the Bible story—counterproductive. It does so, however, not by tricking the disputants, as Solomon did, but instead by making truthfulness a generally sound strategy.

#### 4. A Real Divorce Settlement

Erlanger, Chambliss, and Melli (1987, p. 583) characterize informal processes used in divorce settlements as "often contentious, adversarial, and beyond the perceived control of one or both parties." AW, we believe, would give the parties some greater measure of control by establishing clear "rules of the game" by which marital property is distributed. But are there

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<sup>7</sup>To make things easier for Tom in the case at hand, we would add that there is nothing in AW that requires that it be revealed, or made part of the public record, that his son, John, was worth "only" 25 points to him.

any real-life instances in which the discipline of AW might have helped both parties in a divorce?

Although no case can simply be rerun to see what an alternative dispute-resolution procedure would have produced, we have found a divorce case that illustrates how AW can take some of the arbitrariness out of the allocation of property to the spouses, which failed in part to mirror the preferences of both (but especially the wife's). In fact, the dissenting judge in this case, when it was heard upon appeal, offers *prima facie* support for our argument that there was an alternative settlement of this case that would have benefited both parties. It could have been implemented, we believe, if AW had been used.

Before discussing the details of this case, it is worth pointing out that property-division laws vary from state to state. Most now incorporate some form of an "equal division" standard, such as the Marital Equitable Distribution Law enacted by New York state in 1980. Although this law was not designed as a substitute for a judge's weighing of the conflicting claims of the two sides, it does provide a set of guidelines to determine what distribution of property is equitable. Given that certain criteria are met, the court must subject the distribution of property to a 50-50 standard.<sup>8</sup>

The case of *Jolis v. Jolis*, 446 N.Y.S.2d 138, was the first case heard in New York City by the state Supreme Court after the law took effect on July 19, 1980 (the trial commenced on December 5, 1980). Several elements in

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<sup>8</sup>This standard has been much criticized; see, for example, Fineman (1991), who, on the basis of "horror stories" and statistical studies, argues for "the abdication of equality" because "I believe women and children will fare better under legal rules that reference their material and emotional circumstances, not grand theoretical abstractions" (p. 11). Elsewhere Fineman (1991, p. 204) notes that in the case we describe next *Jolis v. Jolis*, "the equity model is a form of property reallocation or asset-sharing based on other women's social or cultural disadvantages and not on their own circumstances."

this case—which was decided on October 30, 1981, after many delays—were cited as warranting “equal division of marital property” (p. 138), including the marriage’s duration of 41 years (the couple spent 33 of these years together), the wife’s relinquishment of her early and successful career, her role in the marriage and the raising of the couple’s four sons, her “spousal companionship,” and her “lack of skills or training which would enable her to undertake a self-supporting career” (p. 150).

There were both real estate and liquid assets to be divided in this case. But in the absence of any formal procedure to divide the property, a lengthy dispute ensued, which eventually reached the appellate division of the Supreme Court. On appeal the five-person Court did not reach a consensus on a fair division of the property, with one of the justices writing a strong dissent of the majority decision.

This dispute was very costly in time and money to the couple, who had enjoyed a life of substantial wealth, luxury, and gracious living. The wife had given up a budding career as a successful singer when she married, with the Court acknowledging that

the wife’s contributions and services are . . . substantial as a homemaker, spouse, mother of four sons, and manager of the households, both here and abroad. Her faithful devotion, her social companionship, intelligence, charm, friendships with the wives of his business contacts and linguistic fluency were all of importance to the husband in his worldwide social circles and in his career (p. 152).

The couple’s story began in 1939, when they met at the Maisonette Russe Club in New York’s St. Regis Hotel and fell in love. The wife was appearing as a singer and earning \$500 per week. Although her future

husband earned only \$50 per week, he was the son of a prosperous British businessman. With his brother, the son set up a diamond merchandising firm in New York one year earlier.

The growth of this business, and its merger into Diamond Distributor's Inc. (DDI), allowed the couple to enjoy a rather grand lifestyle of travel and entertainment in both New York and Paris. At the time of their divorce, the husband was president and CEO of DDI, with a net worth exceeding \$5 million, two-thirds of which was in company stock.

The Court determined that the stock was not marital property because its "increased value during marriage . . . [was] attributable to market factors"—especially the "diamond fever" of the late 1970s, when the couple were no longer together—and the husband's family associations (p. 147). This left as the principal assets to be divided real estate in Paris and New York.

The Court described both parties as "highly educated, intelligent and articulate" (p. 141). The wife was "a natural linguist, fluent in English, Spanish, French and thoroughly familiar with German, Portuguese and Russian" (p. 141), who had given up her promising career as an actress and singer in order to raise and care for the couple's four sons. The divorce was a bitter end to their 41-year marriage, which was preceded by the husband's leaving his wife to live with another woman. The couple battled over (1) what constituted marital property, (2) how it was to be divided, and (3) the annual maintenance sum to be paid to the wife, with the case finally being decided in the appellate division of the Supreme Court in 1983.

We indicate in Table 1 the value and type of assets that the Court

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Table 1 about here

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deemed marital property. These assets do not include various articles of furniture, art, jewelry, and other personal property possessed by each party, and not claimed by the other, which the Court assessed as “about equal” in value and “already distributed” (p. 144).

The Court granted the husband all the real estate, except for the large apartment in Paris, and ordered that he pay the wife a series of three payments, over a span of three years, that would leave her with half the assets. While recognizing that “the wife seeks permanent exclusive use and occupancy of the Avenue Foch apartment [in Paris] as her marital home and/or a transfer of legal title to her”—to which she “has strong emotional attachment” (p. 145)—the Court ordered that it be sold after a period of three years from the date of its decision, saying it was too large, its upkeep too expensive (it generated over \$43,000 in yearly expenses), and not needed for her four grown sons, who were by then self-supporting. This was a stunning setback for the wife.

By comparison, the husband was entitled to share in the sale of the Paris apartment as part of the marital distribution. The Court stipulated, however, that the husband contribute an annual maintenance sum of \$65,000 to his wife.

This decision was appealed by the wife, but her appeal was denied. In his dissent in this case, 470 N.Y.S.2d 585 (A.D. 1 Dept. 1983), Justice J. Kassel wrote:

While it is true that the wife, now 67 years of age, is not infirm, it would be unfair in three years to compel her, then a 70 year old woman, to seek another home after having lived in the same apartment for more than 25 years of the 41 year marriage (p. 588).

Admitting that the trial court had reached “a very comprehensive and painstaking opinion” (p. 587), Justice Kassel nevertheless rejected the argument of his colleagues that “awarding former wife sole possession would materially upset delicate equitable distribution of assets meticulously worked out by the trial court” (p. 584). Instead, he said,

the wife should not be forced to vacate her home and submit to mandatory sale of the apartment. The entire ownership should be conveyed immediately to . . . [her] for her sole use, occupancy and and disposition, in recognition of the various other residences owned by the parties which now remain with the [husband] (p. 587).

Recall that the trial court had awarded the three other pieces of real estate to the husband, on the grounds that the Paris studio met his need for a residence there for European business, and the “the husband’s equity in [the New York coop] cannot be recouped by forced sale” (p. 151 of appellate decision). The same seems to have been true of the farm, with its appraisal value based on a possible 1983 sale.

We surmise that the husband probably wanted to retain these three properties. By the same token, the lack of their mention in the wife’s appeal leads us to conclude that she was interested solely in obtaining the family residence in Paris. As for the liquid assets, we assume that their value to both the husband and wife is roughly commensurate with their appraisal value.

On the basis of these assessments, the point allocations given in Table 2, in which the larger of the two assignments is underscored, would seem to

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Table 2 about here

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reflect the worth of the marital property to each party. By way of further explanation, the husband's point allocations indicate his greater interest in all the real estate except the Paris apartment, whereas the wife's allocations indicate the opposite preferences. Observe that both parties appraise the liquid assets either the same or within one point of each other.

The husband and wife win initially on their underscored items, which gives the husband only 45 points compared with the wife's 61 points. Giving the tied 15-point profit sharing plan to the husband, because it has the smallest ratio ( $15/15 = 1.0$ ), leaves him with 60 points, 1 point shy of his wife.

The item with the next-smallest ratio that favors the wife, and which she therefore must partially relinquish to achieve equity, is money and receivables, which has a point ratio of  $6/5 = 1.2$ . The husband's and wife's total points are equalized, with the husband getting  $x$  and the wife getting  $1 - x$  of the points each attaches to this item, when

$$60 + 5x = 55 + 6(1 - x).$$

(Notice that on the wife's side of the equation, we use 55 instead of 61, since this represents the number of points that she has, not counting the item that is involved in the transfer.) Solving for  $x$  gives  $x = 1/11$ . Thus, the husband is entitled to 9.1% of the money and receivables, or \$3,906, and the wife \$39,066, with each party receiving *in toto* 60.5 of its points (considerably fewer than the 69.0 points that each spouse received in the hypothetical case discussed in section 3).

Anticipating his wife's overwhelming desire for the Paris apartment—and that she would probably put the bulk of her points on it (as assumed in Table 2)—the husband might consider (erroneously, it turns out) distributing his 100 points across everything else. If he won on everything else, which is likely, he would initially obtain 100 points to his wife's 55 points. But then he would have to give back several items, so he would actually come out worse than if he made the (honest) allocations shown in Table 2. Hence, his undervaluing the Paris apartment, and overvaluing the other items, inevitably leads to his losing several of the latter, to his detriment.

On the other hand, the husband could benefit from almost matching his wife's 55 points on the Paris apartment (by putting, say, 54 points on it). Although he might lose about half the other items in doing so, all would have to be ceded back to him, plus some of the Paris apartment, in order to bring him up to his wife's point total.

But this deception strategy by the husband carries great risk unless he knows in advance exactly what his wife's point allocation will be. If he does not and puts, say, 56 points on the Paris apartment—thinking that his wife will put still more—both he and his wife could end up with property that neither wants. In fact, such a bad call by the husband could bring his honest point total, as reflected in his point allocations in Table 2, under 50 if he ends up stuck with the Paris apartment (or most of it), which he values only at 35.

We conclude that attempts to manipulate AW, despite its vulnerability in theory (section 2), can badly hurt the players in practice—unless, of course, their intelligence about the other party's allocations is perfect or nearly perfect. But in the absence of a spy, such intelligence on the other party's allocations will in most cases be difficult to obtain and then exploit.

Hence, we think that AW will, in general, induce honest point allocations, even though, in the case of divorce, both parties presumably know each other intimately and might therefore be tempted to try to outguess each other.

A possible objection to the use of AW is that while it gives each party 60.5 of its points in the present case, it does not result in an equal division of the assets in terms of their monetary value. Thus, the wife gets \$681,922, and the husband \$591,180, so the wife would seem to receive a \$90,740 bonus under AW. But this claim is mistaken, based on the points each party allocates to the items shown in Table 1.

Recall that the monetary values are those estimated on the basis of appraisals made by the Court. But it is the points, which reflect the values of the players, that *should* count. In fact, to give back half of the wife's \$90,740 bonus, or \$45,370, to the husband (by giving him all the cash and receivables, on which the equity adjustment was made, plus 1.0% of the Paris apartment) would create an imbalance in points: she would receive only 54.4 of her points, whereas he would receive 65.4 of his points, instead of their both receiving 60.5 points. Consequently, equitability would be destroyed to equalize the wrong thing—the Court's appraisal of the monetary value of the items, rather than the parties' own estimates of their worth.

Not only does the wife suffer by the forced sale of her Paris apartment within three years, but the husband also does not fare entirely well by the stipulations that the Court imposed on him. Although he was not forced to sell his vested interest in his company's profit-sharing plan, which was projected to more than double to \$250,000 in five years, nor to surrender his life insurance policy for its cash value, he was directed by the Court to

increase his life insurance coverage from \$65,000 to \$200,000 and make his wife the sole beneficiary. Also, he was ordered to continue to provide for her health insurance as well as maintenance.

This case is not unusual: one or both parties are often dissatisfied with the provisions of the settlement in divorce cases, with one-third to more than one-half of divorced individuals reporting that they were “seriously unhappy” with their settlements (Kressel, 1984, p. 12). When children are involved, the antagonistic negotiations of their parents may establish the terms of their future interaction, which often leave the children with emotional or psychological scars.

## 5. Conclusions

AW, in our view, provides a straightforward settlement device that takes due account of the interests of both parties. Its compelling properties—envy-freeness, equitability, efficiency, and strategy-proofness—make the settlement the best, in these several senses, that the parties can achieve.

Since the settlement is not the product of protracted negotiations or court battles, it is likely to lead to a more satisfying and durable outcome. In divorce cases, in particular, it would probably foster more civil future relations between the parties.

The fact that AW may circumvent litigation that drags on in court and drains husbands and wives of their resources may be a social good, but it will not please lawyers if it robs them of legal fees. We believe, however, that lawyers as well as mediators can play a valuable role in AW’s use by

- helping their clients make their point assignments in a way that reflects their honest estimates of worth, which generally will lead to

better settlements for both parties;

- assisting the parties in predicting possible outcomes, perhaps by anticipating the allocations of the other party and running through various scenarios they might face.

Of course, it will remain for the courts to determine what constitutes the marital property to which AW can be applied.

While honesty in making assessments will generally be the best policy, clients will still need to be assured of this. Also, they will need assistance in sorting out their feelings in order to make accurate assessments of value.

*Jolis v. Jolis*, in our opinion, illustrates how the litigation process can go wrong when judges insinuate their judgments into dispute resolution, thereby shedding the disputants of responsibility for registering their own opinions, which we believe should be paramount in the process.

Just as a court's decision may be arbitrary, so the results of a mediation process may be no better if the relatively unstructured negotiations in mediation leave the parties without a procedure for reaching closure. AW seems to us to provide the discipline of a formal process that, at the same time, allows the disputants to speak for themselves, reaching a mediated agreement based on their separate and distinct interests and needs.

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**Table 1**  
**Value of Marital Property in Real Divorce Case**

*Real estate*

90% of large apartment in Paris (family home)	\$642,856
Paris studio	42,850
New York City coop (equity in)	103,079
1/3 of farm in Dutchess County, New York	119,200

*Liquid assets*

Cash and receivables	42,972
Securities	176,705
Corporate profit-sharing plan	120,940
Husband's life insurance (cash surrender value of)	24,500

*Total* \$1,273,102

**Table 2****Point Allocations of Husband and Wife in Real Divorce Case**

<i>Marital Property</i>	<i>Husband</i>	<i>Wife</i>
Paris apartment	35	<u>55</u>
Paris studio	<u>6</u>	1
New York City coop	<u>8</u>	1
Farm	<u>8</u>	1
Money and receivables	5	<u>6</u>
Securities	<u>18</u>	17
Profit sharing plan	15	15
Life insurance policy	<u>5</u>	4
<i>Total</i>	100	100