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Getting Divorced Online: Procedural and Outcome Justice in Online Divorce Mediation

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Abstract
In this paper we discuss a study of the experiences of 126 individuals who participated in online divorce mediation in The Netherlands. Divorce is a dispute in which the parties have to distribute a large pool of assets and responsibilities. The distributive dimension of divorce substantiates the expectation that one of the parties may be more content with the outcome than the other. The results of the study show that the divorcées do not differ substantially in how they perceive the quality of the procedure and the quality of the outcome. Both parties assigned relatively high scores to both the procedure and the outcome. This finding suggests that the online mediation process and its outcome are perceived as equally fair by both parties. However, there is a noticeable distinction within the couples in the reported costs of the procedure. Men tend to report higher monetary and time costs, whereas women are more concerned with the intangible costs of the online mediation – negative emotions and damage to important relationships. Overall, our findings suggest that online divorce mediation is a viable alternative to both offline mediation and other more traditional modes of dispute resolution in divorce.

1. Introduction

The aim of this paper is to discuss the results of a pilot project for enhanced delivery of legal aid through online dispute resolution (ODR) methods. In 2009, the Dutch Legal Aid Board initiated a pilot project for online mediation in divorce cases. In order to evaluate this procedure, we conducted a study to assess the perceived quality of the procedure and the perceived quality of the outcome by asking the participants to report their experiences. The quality of the procedure was operationalized as procedural, interpersonal and informational justice. The quality of the outcome was measured by taking distributive, restorative, corrective, transformative, informational and formal justice as well as legal pragmatism into account. These distinct dimensions of outcome justice were clustered into four categories – distributive justice, restorative justice, transparency and functionality. The present study is one of the first empirical inquiries into ODR applications in general and specifically of an ODR application for individuals who file for legal assistance in divorce cases. Moreover, it is one of the first studies within the field of procedural justice research in which the perceptions of both parties involved in the dispute were measured. It is therefore possible to compare these perceptions and assess the commonly held assumption that if one party is satisfied with the outcome, the opposing party is not. Furthermore, the present study allows for a comparison of perceived justice between men and women.

Earlier justice research has predominantly compared alternative dispute resolution (ADR) methods to court litigation. In general, most of the empirical studies found that people were more satisfied with mediation than with litigation processes. Pearson and

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1 We would like to thank Corry van Zeeland, Madeleine Leers and May-Britt Kollenhof-Bruning for the invaluable help in the process of conducting this study.
2 Raad voor Rechtbijstand, see http://www.rvr.org, last visited on 23/06/2010
Thoennes studied 700 individuals who were involved in divorce mediation and reported high levels of satisfaction. Ninety percent of those participants who reached an agreement during the mediation were satisfied with the mediation and eighty-two percent of those participants who did not reach an agreement were satisfied with the mediation.

ODR is an alternative to traditional dispute resolution procedures. Although there is no single definition of what ODR is, some commentators define it as a mixture of 1) sui generis forms of dispute resolution responding to the needs of Internet users and 2) different alternative dispute resolution forms enriched with online capabilities. Similar to ADR, the main forms of ODR are negotiation, mediation and arbitration, the only difference between the two forms of dispute resolution being that in ODR all communication occurs online. The procedure that we study in this paper is online mediation and for simplicity we will use the general term ODR to describe this particular mode of dispute resolution.

**Online Dispute Resolution**

ODR involves two or more parties communicating by electronic means in an attempt to reach an agreement. Communication can be either synchronous, i.e. through instant messaging, or asynchronous, i.e. through email messages. The development of ODR has been driven by two main forces. First, due to an increase in online commerce, there was a need for low-cost and cross-jurisdictional dispute resolution methods. Second, proponents of ADR have been interested in exploring alternatives to court adjudication. ODR seems to be an efficient and convenient alternative in many types of disputes. The main advantage of ODR is simplicity as it allegedly saves both time and monetary costs. People who resolve their disputes online do not have to travel or attend meetings, but can simply negotiate from their computers at home. In addition, settling a conflict online may force disputants to focus on the issues that need to be settled instead of being distracted by the emotional aspects of the conflict. Sceptics of ODR argue that it is less powerful than face-to-face negotiations since the absence of non-verbal cues interferes with an understanding of the other party’s interests which in turn decreases the likelihood of obtaining an integrative agreement.

Research has found that online communication is more blunt and harsh than face-to-face communication and can therefore more easily lead to misunderstandings. If negotiators do not know each other prior to the negotiation, misunderstandings can easily lead to negative communication, distrust and eventually impasse. In contrast, if negotiators know each other, they have more cues to interpret the other party’s actions and motivations. For ODR to be successful it is therefore important to have some insights into the other party’s intentions which can for instance be achieved by shared group

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5 THOMAS SCHULTZ, et al., Online Dispute Resolution: The State of the Art and the Issues, SSRN. (The paper makes an extensive comparison between the similar ADR and ODR modes. Two different forms of mediation are distinguished – facilitative and evaluative see p. 9)


membership or mutual self-disclosure. It may therefore be argued that divorce cases are particularly suited for ODR since both parties know each other well enough to interpret each other’s actions and motivations which will increase the likelihood of finding an integrative agreement. Additionally, divorce is typically characterized by a highly emotional engagement of both parties, which may sometimes distract attention away from important issues that need to be settled. ODR has been argued to force disputants to focus on the issues that need to be settled instead of being distracted by the emotional aspects of the conflict.

The quality of the procedure and outcome of a dispute resolution process
In order to facilitate dispute resolution and to be considered an alternative to offline dispute resolution, an ODR application has to meet disputants’ needs for a fair procedure and outcome. Disputants are generally interested in receiving a favourable outcome, i.e. an outcome that minimizes their loss and maximizes their gain. In addition, research has demonstrated that individuals are deeply concerned with distributive justice. This research has shown that people view an outcome as fair when their own outcome-to-input ratio equals that of a comparative other, which is known as equity theory. Other distributive rules besides equity concern equality and need perspectives. Equality refers to the belief that resources should be allocated equally across people whereas the need perspective emphasizes that resources be allocated according to people’s needs. In addition to distributive justice, the quality of an outcome can be measured by issues of restorative and corrective justice, i.e. restoration of the harm done. Additionally, issues of transformative justice, i.e. restoration of the damaged relationship, informational justice, i.e. an explanation about the outcome, legal pragmatism, i.e. taking the consequences of the outcome into account, and formal justice, i.e. transparency of the outcome, can be utilized to measure the quality of an outcome (for a more detailed discussion on how to measure the quality of an outcome of a dispute resolution procedure.

In addition to outcome justice, research from the field of social psychology has consistently demonstrated that individuals are concerned with the fairness of the procedure by which the outcome is derived, which is known as procedural justice. One

10 J. S. Adams, Inequity in social exchange, in Advances in Experimental Social Psychology (L. Berkowitz ed. 1965).
11 Deutsch.
of the most replicated findings is that people perceive procedures as fair if these procedures allow them voice. Inclusive procedures give people the opportunity to present their case. Moreover, people were found to view procedures as fair if these procedures are unbiased and neutral, based on accurate information, consistent, allow for appeal procedures for correcting inaccurate outcomes and consider ethical and moral standards.\textsuperscript{14}

Research also found that aspects pertaining to the interactional treatment people receive when procedures are enacted influence justice judgments. Specifically, Bies and Moag introduced the concept of interactional justice.\textsuperscript{15} People want to be treated with respect and dignity and view procedures as unfair if they do not recognize their status as a valuable member of society. Additionally, justice perceptions were found to be influenced by the amount and content of information people receive regarding the procedure and the allocation of outcomes. Apparently, providing explanations about the procedure and outcome increases people’s perceptions of fairness.\textsuperscript{16} The two types of interactional justice have been referred to as interpersonal and informational justice respectively. Empirical studies have demonstrated that procedures in which people are treated with respect and politeness and in which the rationales of procedures and decisions are explained result in more favourable justice perceptions.\textsuperscript{17} In contrast, any perceived violation of these aspects of interactional justice or the aforementioned aspects of procedural justice has a negative impact on justice evaluations. For an ODR application to be perceived as fair and to be perceived as leading to a just outcome, the various aspects of outcome justice as well as the various aspects of procedural, interpersonal and informational justice need to be met.

Besides enabling us to explore the perceptions of users of the online divorce mediation procedure in general, our research design allows us to explore gender differences in outcome and procedural justice perceptions. Some research has found that gender differences exist in the perceived importance of procedural and outcome justice as well as in the importance of specific aspects of an outcome. Research on gender differences in distributive allocations in an organizational context has found that men are more satisfied with an allocation in which resources are allocated equitably according to

\textsuperscript{14} \textsc{Jason A. Colquitt, On the dimensionality of organizational justice: a construct validation of a measure, 86 Journal of Applied Psychology 386(2001).}
\textsuperscript{15} \textsc{Robert J. Bies & Joseph F. Moag, Interactional justice: communication criteria of fairness., in Interactional justice: communication criteria of fairness (Roy J. Lewicki, et al. eds., 1986).}
\textsuperscript{16} \textsc{Robert J. Bies & Debra L. Shapiro, Interactional fairness judgments: the influence of causal accounts, 1 Social Justice Research 199(1987).}
\textsuperscript{17} \textsc{Colquitt, Debra L. Shapiro, et al., Explanations: what factors enhance their perceived adequacy?, 58 Organizational Behavior and Human Decision Processes 346(1994).}

\textsuperscript{18} \textsc{Robert J. Bies & Debra L. Shapiro, Voice and justification: their influence on procedural fairness judgments, 31 Academy of Management Journal 676(1988).}
inputs whereas women tend to allocate resources more equally.\textsuperscript{18} Research on gender differences in the perceived importance of procedural and outcome justice has found that in contrast to men, women generally define success in terms of the achievement process rather than the outcome and try to turn zero-sum distributions into cooperative ones.\textsuperscript{19} In an online negotiation setting, similar patterns were found, i.e. female negotiators were relationship oriented while men were profit oriented.\textsuperscript{20} It has therefore been concluded that generally women pay more attention to process-oriented issues whereas men pay more attention to outcome-oriented issues.\textsuperscript{21} According to this research it seems that women evaluate their experiences more in terms of procedural justice whereas for men, satisfaction is more closely linked to whether outcomes are fairly distributed.

Other studies have not found support for the notion that women emphasise relational aspects whereas men emphasise outcomes.\textsuperscript{22} Women were found to place more emphasis on their perceived standing and on perceptions of outcome favourability than men. Additionally, no gender differences were found in the antecedents of procedural justice. According to the authors, the finding that women placed greater emphasis on the favourability of the outcome than men might be due to less confidence in the justice system which is “historically dominated by men”.\textsuperscript{23} If this explanation is right, we would not expect different levels of satisfaction between men and women since both male and female mediators were included in the pilot study.

Following this brief discussion on the effect of gender on the perceived importance of procedural and outcome justice, we expect to find either no difference between men and women or to find that women are more concerned and thus are more critical on process-oriented and relational issues, such as procedural and interpersonal justice, and that men are more sensible on outcome-oriented issues. Interestingly, research on gender differences in online negotiations has found that women tend to behave more hostile and competitive when negotiating online than offline whereas men do not show any differences between their online and offline behaviour.\textsuperscript{24} This effect might however be mainly due to the fact that the parties in these negotiations did not know each other and therefore did also not know the opponent’s gender. We therefore do not believe that the online component will have a major influence on the gender differences that may be observed in the present study.

\textsuperscript{23} KULIK, et al., 356.
\textsuperscript{24} ALICE STUHLMACHER, et al., \textit{Gender Differences in Virtual Negotiation: Theory and Research}, 57 Sex Roles (2007).
2. Study

Description of the ODR procedure

On behalf of the Dutch Legal Aid Board, an ODR application was developed and offered to a limited number of legal aid applicants. The core rationale of the pilot project was to test the potential of ODR in settling and adjudicating divorce cases. People who filed for divorce and contacted the Dutch Legal Aid Board were screened by the council’s helpdesk for eligibility for online mediation. Criteria on the basis of which the helpdesk made these decisions include: parties have access to the internet, both parties have their own email account, and both parties had to agree to online mediation. In addition, decisions about eligibility were based on the complexity of the case – cases with factual and/or legal complications were referred to other means of dispute resolution. Since the initiative was defined as a pilot application of online mediation, all formal expenses for the procedure, i.e. the fees of the mediator, were covered by the Legal Aid Board.

As soon as a couple was determined to be eligible for online mediation and both parties had agreed to online mediation, the assigned mediator created a case in the online mediation application and invited the divorcées separately through an email to the application. The parties had to read and accept an user agreement and had to answer a number of intake questions upon first signing in, including questions about the number of children, duration of marriage etc. The purpose of this intake questionnaire was to provide sufficient detail to the mediator about the divorcées and the dispute. Both parties could communicate with their mediator or each other via text messages. All communication between the two parties was moderated by the mediator who had the discretion to decide which information should be visible to the other party. All communication between parties and the mediator was asynchronous, i.e. exclusively exchanged via text messages. Parties were expected to react to each other’s statements within a period of 48 hours, which was one of the major conditions of the user agreement.

After having settled all topics of the dispute, the agreement was put into an electronic covenant. Both parties were required to accept the covenant before transferring it into pdf format. Each of the divorcées could then print out and sign the covenant. The evaluation of the online mediation procedure took place after participants had reached an agreement on all issues; all participants in the online mediation procedure were required to participate in the evaluation of the procedure before printing the covenant. After printing the covenant, parties could consult their lawyers and with or without consultation of their lawyers make an appointment at the court to have a judge make the divorce official.

Costs, quality of the procedure and quality of the outcome

Disputants’ perceptions on the fairness of the online divorce mediation were studied using a framework that measures the costs of the procedure, the quality of the procedure and the quality of the outcome.25

25 Gramatikov, et al.
The costs of a procedure are defined as the monetary expenses for obtaining an outcome, as well as categories of opportunity and intangible costs. Out-of-pocket costs are all monetary outlays made by the divorcees in order to reach an outcome. Most often, the literature on costs of justice envisages legal costs and legal fees. However, in our methodology, we include other out-of-pocket expenses, such as money spent for travel, experts, witnesses, search and collection of information, translation and communication.

Opportunity costs are defined as non-monetary costs for which markets exist and whose shadow costs could be estimated. Thus, opportunity costs are expenses incurred in other units than money, but which could be monetized. The most frequent example of opportunity costs is the personal time invested into solving the dispute. Other instances of opportunity costs are the numerous instances of foregone earnings caused by the pending procedure. The third category of costs on paths to justice are intangible costs.

The main difference between opportunity and intangible costs is that the latter are much more difficult to assess and quantify. In our methodology, we focus on three instances of intangible costs which are assumed to most intensely impact the accessibility of a path to justice – stress, negative emotions and damage to relationships. Since in our study the legal costs (i.e. the fees of the mediator) were covered by the Dutch Legal Aid Board and we therefore did not expect monetary costs to be a significant issue, we focused here on the time invested by both parties into coming to an agreement and the stress, negative emotions and damage to relationships caused by the procedure.

We define the quality of the procedure using the concepts of procedural, interpersonal and informational justice. Procedural justice is not a one-dimensional construct. Research has confirmed that it includes several facets – decision control (the opportunity to influence the outcome), process control (the opportunity to express views and feelings during the procedure), consistency (procedures are applied consistently across people and across time), bias suppression (the decision-maker is neutral), accuracy (procedures are based on accurate information), correctability (appeal procedures for correcting inaccurate outcomes), and ethicality (the procedure implements general ethical and moral standards).

In addition to procedural justice components, we include the concept of interactional justice when examining the quality of the procedure. Interactional justice consists of two components – interpersonal justice and informational justice. Interpersonal justice is “the degree to which people are treated with politeness, dignity and respect by the authority in question”. The concept has been operationalized into several sub-

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indicators – politeness, dignity, respect and propriety. Some authors insist that the quality of the interpersonal treatment is more important to the general view of the fairness of the procedure than the decision-making dimension. The second component of interactional justice is informational justice. It refers to the explanations and justifications provided to people. Informational justice is measured with the following indicators: honesty, justification, justification (reasonable), justification (timely) and justification (specific).

At the end of a path to justice, the parties receive a certain outcome – i.e. a decision by a neutral person, an agreement or disagreement between the parties in the dispute, or an end to the path because one of the disputants withdraws. Verdonschot et. al. identify eight normative domains which generate indicators of outcome justice – distributive justice, restorative justice, corrective justice, retributive justice, transformative justice, informational justice, legal pragmatism and formal justice. These criteria are grouped into four more general dimensions – distributive justice, restorative justice, functionality and transparency dimensions.

The distributive justice dimension refers to how assets, damages and tasks are divided. At the core of this dimension is the concern for a fair allocation of the available resources. Specifically, it has been argued that the outcome should reflect the effort people invested which is known as equity theory. Other distributive rules besides equity concern equality and need perspectives. Equality refers to the belief that resources should be allocated equally across people whereas the need perspective emphasises that resources be allocated according to people’s needs. People consider an outcome as fair if it reflects their needs as well as the needs of the other parties. This view is based on the belief that people are not relentless self-interest seekers and, thus, are not indifferent to the outcomes that others receive. Another dimension of the quality of the outcome is restorative justice. An outcome which gives the aggrieved party compensation only for its pecuniary and non-pecuniary damages mutatis mutandis is typically perceived as fair. The third facet of the quality of the outcome is its functionality. Functionality could be rephrased as the extent to which the outcome solves the underlying problem. Outcomes of high quality should provide a resolution to the problem that does not further aggrieve the relationships with the other party. The fourth dimension of the quality of the outcome is the transparency, which refers to the amount and quality of information provided to the user of the procedure. Transparency is furthermore operationalized as the possibility to compare the outcome that one received to the outcome of others in similar cases and as the actual similarity between the outcome that one received and the outcome of other people in similar cases.

31 Colquitt, 2001
33 HOLLANDER-BLUMOFF & TYLER, 476. BIES & SHAPIRO, Interactional fairness judgments: the influence of causal accounts. COLOUITT. SHAPIRO, et al.
34 BIES & SHAPIRO, Interactional fairness judgments: the influence of causal accounts.
35 COLOUITT. BIES & MOAG, Interactional justice: communication criteria of fairness. (BIES & SHAPIRO, Interactional fairness judgments: the influence of causal accounts. SHAPIRO, et al.
36 VERDONSCHOT, et al.
37 MARTIN GRAMATIKOV, et al., A Handbook for measuring the costs and quality of access to justice (Maklu. 2009).
38 ADAMS, ( 
39 DEUTSCH.
Sample and data collection

All 126 participants of the online divorce mediation were included in the evaluation of the procedure. After having come to an agreement, the participating parties were asked to fill in a web-based questionnaire. Out of the 126 effective responses, 14 were submitted by only one party in the mediation which resulted in a sample of N=112, i.e. 56 couples. Two of these 56 couples comprise individuals of the same gender (female). Data entry error is possible but we also cannot rule out that same-sex couples were represented in the sample. Since 2001, the Dutch legal system recognizes and regulates marriage between two persons of the same biological sex.

The mean age of the respondents is 40 years (SD=8.82 years). 11% of the respondents report a net income of less than €950 per month, 14% have a monthly income between €950 and €1300, 21% between €1300 and €1900, 43% between €1900 and €3150 and 12% have a monthly net income of more than €3150. The majority of the respondents in our sample work full-time (64.3%) or are self-employed (9.5%). 5.6% of the respondents are unemployed and the remaining 20.6% do not work because of retirement, being a housekeeper or some other reason. Almost three quarters (71.5%) of all respondents have a professional degree in the first stage of tertiary education. A University degree is reported by 15% and a further 13.5% have a high school degree or a lower level of education.

3. Results

Divorce is a serious personal, relational and legal issue which affects the life of the divorcees, their children and the people around them. Normally, people who enter a divorce procedure in the Netherlands rely heavily on advice and representation by legal professionals. They involve legal professionals to help and represent them in formal and informal dispute resolution procedures such as litigation, mediation or negotiation. It is an established part of the general culture that divorce revolves around the skills and abilities of the legal professionals. Our sample consists of people who requested legal assistance from the Dutch Legal Aid Board and agreed to participate in an experimental online mediation. This suggests that the sample is biased towards less difficult cases and/or divorcees who are more willing to compromise. Only a small fraction (13%, n=16) of the respondents were assisted by a legal professional during the mediation procedure. Such a small number limits the possibility to assess the impact of having a lawyer on individuals’ perceptions of the quality of the procedure and outcome.

The primary aim of every mediation is to bring the parties to a mutually acceptable agreement. 76% of the interviewed individuals report that such an agreement was achieved. Another 8% report that there was a partial agreement in their case and only 16% respond that no agreement has been reached within the mediation procedure. At face value, the studied procedure shows a high success rate but without comparable data it is difficult to judge how good a success rate of 3 out of 4 is. It is also important to

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40 The fact that information about the experiences of 14 participants of the online mediation if not available is probably due to a minor technical problem with the data collection.
41 LBO – 7.1%; MBO – 38.9% and HBO – 25.4%
42 It is very likely that a large proportion of the respondents consulted a lawyer after printing the convenant and before having a judge make the divorce official.
keep in mind that the sample might be biased towards less complicated cases. When comparing the reports of both parties regarding the outcome of the mediation procedure, we found that in 49 out of 56 cases, both parties report identical outcomes in terms of successfulness of the procedure. In 7 cases, the two parties report different negotiation outcomes. Although it is possible that the two parties in a dispute perceive the outcome differently, we cannot rule out the possibility that this difference is due to a measurement or selection error.43

**Overall views of the quality of the procedure**

As described above, the quality of the procedure is measured with three sub-indicators: procedural, interpersonal and informational justice. Each of the sub-indicators consists of a number of items which were measured on a 5-point Likert scale ranging from 1 (to a very small extent) to 5 (to a very large extent). The reported scores of the sub-indicators are simple means of the respective items. Table 1 shows that the respondents find the procedure fair (M=4.27). Interpersonal justice (M=4.5) receives the highest score, followed by informational justice (M=4.19) and procedural justice (M=4.27). Although there are small mean differences, at face value we can conclude that the respondents are relatively satisfied with the quality of the procedure.

<table>
<thead>
<tr>
<th>Table 1: Quality of the procedure</th>
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<tr>
<td>N</td>
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<td>----------------</td>
</tr>
<tr>
<td>Procedural Justice</td>
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<tr>
<td>Interpersonal Justice</td>
</tr>
<tr>
<td>Informational Justice</td>
</tr>
</tbody>
</table>

In the light of the positive assessment of the quality of the online mediation procedure it is not surprising to see that the disputants in our sample are satisfied with the mediator to a large extent (32%) or to a very large extent (46.4%). Less than 10% of the participants report that they are satisfied with the mediator to a small or very small extent. A measure that is related to the degree of satisfaction with the mediator is the perceived trustworthiness of the mediator - almost 90% of the sample finds the mediator trustworthy to a large or very large extent.

At the end of the procedure, the parties receive an outcome which ideally justifies the efforts made and reflects the needs of both parties. Table 2 shows the scores of the four dimensions of the quality of the outcome. Interestingly, the scores of the outcome quality are lower than those of the quality of the procedure. There is also more variation between the four sub-indicators. The mean score of the outcome transparency, which measures the degree to which an individual received sufficient information and could compare the outcome to other similar cases, is 3.00 (though there is a significant non-

43 Wilcoxon Signed Ranks test: z=-.176 p=.860
44 The number of respondents varies because indicator scores are computed only for respondents who provided valid responses to all items of the relevant indicator. For instance, 81 of all respondents provided complete answers to all questions that make up the procedural justice indicator.
response to the two questions, which is likely to be due to the fact that it may be very difficult for disputants to know what the outcome in similar other cases is). The mean score for the distributive dimension of the outcome is 3.91.

Table 2: Quality of the outcome

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributive justice</td>
<td>82</td>
<td>1.57</td>
<td>5.00</td>
<td>3.91</td>
<td>0.82</td>
</tr>
<tr>
<td>Restorative justice</td>
<td>97</td>
<td>1.00</td>
<td>5.00</td>
<td>3.37</td>
<td>1.06</td>
</tr>
<tr>
<td>Functionality</td>
<td>102</td>
<td>1.00</td>
<td>5.00</td>
<td>3.18</td>
<td>1.45</td>
</tr>
<tr>
<td>Transparency</td>
<td>30</td>
<td>1.00</td>
<td>4.67</td>
<td>3.00</td>
<td>1.10</td>
</tr>
</tbody>
</table>

As previously mentioned, mediators’ fees were covered by the Dutch Legal Aid Board. Accordingly, the data show that almost half of the respondents (47%) did not incur out-of-pocket costs. Although the reported maximum is € 2000 we observe monetary costs exceeding € 100 in only 10% of the cases. The result of this skewness of the distribution is a significant difference between the mean (€ 90) and the median (€ 7.5) reported monetary costs. Not surprisingly, higher out-of-pocket costs were reported by respondents who consulted a lawyer during the procedure. In the category of time costs we also observe a non-normal distribution although it is less severe. Unlike the monetary costs, both parties in the mediation had to spend a certain amount of time for preparation and participation in the mediation. For instance, the disputants had to fill in significant amounts of personal data and dispute-related information into the dispute resolution system before the commencement of the procedure and had to react to each other’s messages within a time frame of 48 hours. The mean amount of time spent on the mediation procedure is 28 hours with a median value of 15 hours. The maximum reported amount of time spent is 160 hours, which also means that the variance in the time-costs variable is significantly less than the variance in the out-of-pocket costs variable.

In order to mitigate the effect of the non-normal distribution and convert the money and time variables into units which are comparable to the 5-point Likert scales used to evaluate the quality of the procedure and outcome, we re-scaled the two variables.\textsuperscript{45} The results in Table 3 show that the monetary and time costs of the online mediation are seen as less pressing than both the stress experienced as a result of the procedure and the negative impact of the procedure on important relationships. 25% of the respondents report that they experienced a large or very large amount of stress due to the procedure.

Table 3: Costs

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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\textsuperscript{45} First we rescaled each item to a scale from 1 to 5. In order to limit the effect of the outlying values we capped the maximum value to the 90\textsuperscript{th} percentile of each distribution (200 for out-of-pocket costs and 80 for the time costs). In effect this means that each value which exceeds the 90\textsuperscript{th} percentile is coded as the maximum of the scale. At the last step we reversed the values according to the direction of the Likert scale – 1 meaning bad quality/high costs and 5 meaning high quality/low costs.
A dispute resolution procedure intended to solve relationship disputes such as divorce can be associated with a wide range of emotions. It seems likely that parties who participate in a mediation procedure to settle their divorce experience both positive and negative emotions. In our framework, the negative emotions are part of the category of intangible costs together with the amount of experienced stress and damage to important relationships. Although we acknowledge that it may be difficult to reliably measure the emotions caused by the dispute resolution procedure due to effects of time as well as due to the difficulty of differentiating emotions experienced as the result of the procedure from emotions experienced as the result of the conflict, we believe that including this aspect of intangible costs gives a more accurate impression of the costs of a particular procedure.

Table 4 shows that humiliation and hopelessness are relatively rarely reported by the divorcees. Frustration, anger and disappointment in contrast are more frequently reported. In total, 44% of the respondents say that they felt frustration in a moderate or more severe form. Frustration is an emotion which frequently surfaces in dispute resolution environments. “Frustration is a natural consequence of disagreement and frustration can lead to anger and impasse. But they [skillful bargainers] also understand that frustration is not the same as intransigence, and that adjusting slowly to frustration is not the same as rigidity…”. The mediation procedure made slightly more than one out of three respondents (37%) feel angry to a large extent. Not surprisingly, there are high positive correlations between the five types of negative emotions, which means that the individuals who experienced one negative emotion are more likely to experience another negative emotion.

**Table 4: Negative emotions**

<table>
<thead>
<tr>
<th></th>
<th>Very large degree/completely</th>
<th>Large degree</th>
<th>Moderate degree</th>
<th>Small degree</th>
<th>Small degree/not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frustration</td>
<td>2.4%</td>
<td>19.4%</td>
<td>22.6%</td>
<td>22.6%</td>
<td>33.1%</td>
</tr>
<tr>
<td>Anger</td>
<td>1.6%</td>
<td>12.9%</td>
<td>22.6%</td>
<td>21.0%</td>
<td>41.9%</td>
</tr>
<tr>
<td>Humiliation</td>
<td>2.4%</td>
<td>2.4%</td>
<td>6.5%</td>
<td>8.9%</td>
<td>79.7%</td>
</tr>
</tbody>
</table>
When asked to what degree the respondents found the outcome worth the costs invested, most of the respondents indicate that the outcome was well worth the invested monetary costs. For 77% of the respondents, the outcome was worth the out-of-pocket expenses to a large or very large degree. Most likely this is at least partly due to the fact that the costs for the mediation procedure were covered by the Dutch Legal Aid Board and hence, the respondents only had little monetary expenses. Additionally, 76.5% of the respondents indicated that the outcome was worth the amount of time invested. However, 13% and 11% report that the online mediation was completely or partially not worth the time spent. Furthermore, the intangible costs, i.e. the stress caused by the procedure, the negative emotions and damage to relationships, are depicted differently from the monetary and time costs. 31% say that the outcome was worth the experienced stress, negative emotions and damage to important relationship to a very small degree. In total, 70% of the respondents perceive the outcome not worth the incurred intangible costs. To summarize, while the majority of the divorcees seem to be relatively satisfied with the monetary costs and the time they spent on finding an agreement, they were less satisfied with the intangible costs caused by the procedure. It seems however likely that the stress and negative emotions experienced as the result of the procedure as well as the damage to relationships is not inherent to the specific dispute resolution procedure, but rather to the fact that any conflict resolution procedure has these rather negative consequences.

**Differences within the couples**

In the preceding paragraphs, we discussed the costs and quality of an online divorce mediation procedure as perceived by the end-users of the justice procedure. In this section, we investigate the similarities and differences between the two disputants in each of the 54 couples.

A simple procedure is followed to compare the couples’ perceptions on the costs and quality of justice. First, we analyze the perceptions of the respondents with regard to the 10 sub-indicators used to assess the costs, the quality of the procedure and the quality of the outcome. It is important to note that we treat each couple as paired member of a group. To explore the differences between the perceptions of both parties, we apply a \( t \)-test for paired samples. In other words we compute the difference between the two members of each pair and then test whether the average difference is different from zero.

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46 We excluded the two couples which are reported as same-gender from these analyses since we are interested in gender effects.

47 Costs: out-of-pocket expenses, opportunity costs and intangible costs; Quality of procedure: procedural justice, interpersonal justice and informational justice; Quality of the outcome: distributive justice, restorative justice, functionality and transparency.
There are two conditions required for using the $t$-test procedure for exploring hypothesis and building confidence intervals for differences in paired data.\footnote{LYMAN OTT & MICHAEL LONGNECKER, An introduction to statistical methods and data analysis (Duxbury 5th ed. 2001).} First, the sampling distribution of the differences between the two samples should be normally distributed. Second, the pairs’ observations should be independent from each other. Only two of the ten variables had a non-normal distribution – out-of-pocket expenses and time. To address the issue we use two approaches – 1) use of the non-parametric version of the test which does not require normal distribution (Wilcoxon Signed-Rank Test) and 2) conduct the test on rescaled data which mitigates the influence of outliers.

**Differences in the couples regarding the quality of the procedure**

The mean score for procedural justice was found to be higher for the male respondents ($M=4.35$) than the female respondents ($M=4.27$). However, the difference between men and women with regard to procedural justice failed to reach significance (see Table 5). We cannot be reasonably certain that the difference is not due to sampling error or a result of the items’ aggregation. It is important to keep in mind that these are simple aggregations of more than one item and that some substantial differences could have been levelled off in the aggregated score. There is a negligible and non-significant difference between male ($M=4.51$) and female ($M=4.53$) respondents with regard to interpersonal justice. Informational justice is rated slightly higher by the male participants ($M=4.27$) than the female participants ($M=4.16$). The difference is however not statistically significant at the 95% level of significance.

**Table 5: Pair level differences on quality of the procedure**

<table>
<thead>
<tr>
<th></th>
<th>Mean (M-F)</th>
<th>Std. Deviation</th>
<th>t value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedural Justice</td>
<td>0.0</td>
<td>.58</td>
<td>.38</td>
<td>.70</td>
</tr>
<tr>
<td>Interpersonal Justice</td>
<td>-0.03</td>
<td>0.84</td>
<td>.25</td>
<td>.80</td>
</tr>
<tr>
<td>Informational Justice</td>
<td>0.16</td>
<td>.87</td>
<td>1.22</td>
<td>.29</td>
</tr>
</tbody>
</table>

When looking at the individual items of the aggregated quality of the procedure indicator, no significant difference between men and women is found on any of the indicators, except for decision control and this difference is only significant at the 90% confidence level. Male respondents were more confident that the online mediation allowed them better control over the outcome of the procedure (male: $M=4.00$; female: $M=3.72$, $t=1.83$ $p<.1$).

Male and female respondents did not differ significantly in their perceptions on any of the items in the interpersonal and informational justice dimensions. The mean score on interpersonal justice was 4.54 for male respondents and 4.51 for female respondents. The mean score on informational justice was 4.30 for male respondents and 4.15 for female respondents.
The mean score of both male and female respondents on satisfaction with the mediator was 4.23. In 60% of the cases, both parties are equally satisfied with the way in which the mediator handled the case. There was no significant difference between male and female respondents with regard to their views about the trustworthiness of the mediator (men M=4.39, women M=4.37).

**Differences in the couples regarding the quality of the outcome**

The quality of the outcome is measured by means of four sub-indicators – distributive justice, restorative justice, transparency and functionality. Due to a large number of missing values, there were few couples that could be compared on the transparency dimension and therefore we will not include it in the subsequent analyses.

Table 6 shows that in one of the dimensions of the quality of the outcome, namely functionality, there is a substantial difference between the perceptions of men and women. Functionality is a single item dimension which measures the extent to which the disputants believe that the outcome of the mediation solves the underlying problem. The mean score of the male respondents is 3.04 versus 2.49 of the females. The difference is significant at the 95% level.

Table 6: Pair level differences quality of the outcome

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>Lower</th>
<th>Upper</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distributive</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.12</td>
<td>2.03</td>
<td>0.31</td>
<td>-0.75</td>
<td>0.51</td>
<td>-0.38</td>
<td>.71</td>
</tr>
<tr>
<td><strong>Restorative</strong></td>
<td>-0.19</td>
<td>1.90</td>
<td>0.27</td>
<td>-0.74</td>
<td>0.36</td>
<td>-0.68</td>
<td>.50</td>
</tr>
<tr>
<td><strong>Functionality</strong></td>
<td>0.55</td>
<td>2.01</td>
<td>0.29</td>
<td>-0.03</td>
<td>1.13</td>
<td>1.92</td>
<td>.06</td>
</tr>
</tbody>
</table>

The mean scores on four of the seven criteria of distributive justice were higher for women than for men. However, no statistically significant difference on any of the distributive justice elements of the outcome were found (see Table 7). This can be interpreted as meaning that both parties in the online mediation think that they received equal shares in the outcome and that the outcome reflects the efforts invested and meets the needs of both parties. Only on two items the male respondents were more positive regarding the outcome than the female respondents – equality of the outcome and the extent to which the outcome meets the needs of the respondent. However, the differences were not significant.

Table 7: Indicators of distributive justice

<table>
<thead>
<tr>
<th>Distributive Justice Criteria</th>
<th>Mean Men</th>
<th>Mean Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome was equal</td>
<td>4.18</td>
<td>3.98</td>
</tr>
<tr>
<td>Outcome considered your role in the divorce</td>
<td>3.62</td>
<td>3.79</td>
</tr>
<tr>
<td>Outcome considered the other party’s role in the divorce</td>
<td>3.65</td>
<td>3.68</td>
</tr>
<tr>
<td>Outcome considered your efforts in solving</td>
<td>3.66</td>
<td>3.80</td>
</tr>
</tbody>
</table>
the divorce

<table>
<thead>
<tr>
<th></th>
<th>Outcome considered other party’s efforts in solving the divorce</th>
<th>Outcome considered your needs</th>
<th>Outcome considered other party’s needs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.63</td>
<td>4.15</td>
<td>4.37</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.09</td>
<td>4.37</td>
</tr>
</tbody>
</table>

At an aggregate level, the restorative justice dimension does not reveal a significant difference between the perceptions of male and female respondents. The mean score of male respondents for restorative justice was 2.52 as compared to 2.71 for the female respondents. No significant difference between male and female respondents on any of the constituting items was found.

**Differences in the couples regarding the costs of the online divorce mediation**

Out-of-pocket and time costs are originally measured in their specific units – respectively, euro and hours. The results from the Wilcoxon signed-rank test \((z=3.03, p=0.002)\) firmly suggest that there is a significant difference in the monetary costs reported by male and female respondents. The mean amount of money reported by men is €110 whereas women report expenses totalling to €40. Similarly, men count more time spent on the mediation procedure (M=29 hours) as compared to women (M=23 hours). The difference in the time spent on the procedure is statistically significant \((z=2.11, p<0.05)\). The identified difference is again significant when the standardized scores for out-of-pocket and time expenses are used (see footnote 45). In the monetary costs category, the mean score for men is 3.6, as compared to 4.3 for women (meaning men report higher costs). The analysis of the standardized scores also shows that men report significantly more time spent to prepare and participate in the online mediation procedure \((M=3.39)\) than women \((M=3.68)\). Both pairs of variables are statistically significant at the 5% alpha level.

While men report higher monetary and time expenses, women perceive the intangible costs associated with the dispute resolution procedure as more pressing. There is no statistically significant difference in the stress reported by men \((M=2.46)\) and women \((M=2.46)\). However, female respondents report more negative emotions than male respondents. The mean scores of all five measured emotions are higher (more impact) for women (frustration: \(M=2.44\), angeriness: \(M=2.19\), humiliation \(M=1.38\), disappointment \(M=2.11\) and hopelessness: \(M=1.84\)) than for men (frustration: \(M=2.10\), angeriness: \(M=1.88\), humiliation \(M=1.29\), disappointment \(M=1.85\) and hopelessness: \(M=1.56\)) which means that women suffered more from the negative emotions caused by the procedure than men. The differences of the reported frustration and angeriness between men and women are statistically significant at the 95% level of significance and hopelessness is significant at the 10%.

4. **Discussion**

The main aim of the present study was to evaluate an online mediation procedure for divorce using a framework that measures the costs of justice, the quality of the

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49 We have to remind to the reader that the natural scores are now in reverse order. On this scale 1 means very high cost, 5 means very low or no cost.

50 Out-of-pocket costs: \(t=-3.32, p<0.05\); Time costs: \(t=-2.26, p<0.05\) I guess this was .028?
procedure and the quality of the outcome. Our data are complex and consists of numerous items for each of the observed indicators. Although there are certain differences in some of the items of the indicators, it seems that overall there are no statistically significant differences in the way in which women and men assess the quality of the procedure and the quality of the outcome of the online divorce procedure.

This finding is interesting given that divorce is an exemplary distributive dispute in which often one party is more satisfied than the other. First, the finding implies that the studied online mediation procedure achieves an important goal, i.e. it is viewed equally fair by both parties. As can be seen in Figure 1, the quality of the procedure is not only evaluated almost identically by both parties but also it receives relatively high scores. The highest mean scores were obtained on the interpersonal justice dimension, followed by informational justice and procedural justice.

**Figure 1: Quality of procedure and quality of outcome**

![Quality of procedure and quality of outcome](image)

Similar results were found for the quality of the outcome. Although some small differences between men and women were found in how they rated the quality of the outcome, the overall finding was that the ratings are equal for both parties in the dispute. In divorce cases, the distribution usually concerns the family assets, parental rights, assignment of alimonies or child support rights. Apparently, online mediation succeeds in “splitting the pie” between the two parties in such a way that they are equally satisfied. Looking again at Figure 1 we can see that the quality of the outcome indicators score somewhat lower than the quality of the procedure indicators, but still are arranged somewhere in the middle of the scale. The finding that the transparency dimension received lower scores may be due to the fact that very few respondents answered the questions on this dimension, which may in turn be due to the fact that it may be difficult for justice users to compare their outcome to the outcome of others in a similar situation.

There are two explanations for the finding that the quality of the outcome is rated relatively equally by both parties. First, if people feel they were treated fairly this often invokes a positive appraisal of the received outcome. As previously described, people view procedures as fair that allow them to present their case, that are consistent,
unbiased and in which they are treated with respect. Since the quality of the procedure was rated relatively high, it is possible that this positive evaluation had an impact on the evaluation of the outcome. A second explanation is that the mediators and parties were able to achieve creative and fair distributions. Although we do not have any information regarding the actual outcome of the case, this seems a plausible explanation.

A different picture emerges in the assessment of the personal costs invested in the online dispute resolution. Men reported spending more money and time on the procedure, whereas women reported more stress, negative emotions and damage to important relationships. A possible explanation for this difference is that men are more likely to overreport monetary and time costs whereas women are more likely to report affective costs. The social desirability bias may also play a role in the differential findings for men and women.

Another explanation for the differences in the costs between men and women could be sought in the specifics of divorce. It is not necessary to portray a divorce in adversarial terms but often men assume defensive positions in divorce cases. The general philosophy of the divorce regulation and procedures in the Western world is that it is a safeguard for the rights and interests of the weaker party which is normally the woman. Faced with the risks of losing more than they would win as a result of the divorce, men might be more likely to spend more resources to obtain a favourable outcome. In contrast, women may be more concerned with the emotional burdens of a divorce. They reported higher levels of frustration, anger and hopelessness than men. We could attribute the trend to the general tendency of women to be more alert to affective states. Given that the procedure caused higher levels of negative emotions to women than to men suggests that although viewed in general as fair, online mediation does not sufficiently consider the emotional needs of the disputants. Exchanging e-mail messages could be a frustrating experience when important personal issues are at stake. It is a known fact that online communication is less well suited for the expression of emotions than face-to-face communication. In this regard it is interesting to report, that within our study, participants were also asked whether they used emoticons to express their views and feelings. 60% of the men and 46% of the women said that they did not use emoticons as a means to express their views and feelings. This finding suggests that women use emoticons more frequently than men which may in turn be indicative for the importance of expressing emotions to women but not to men. Additionally, the finding suggests that neither women nor men were particularly concerned with expressing their emotions during the online mediation procedure.

In disputes including personal relationships, people need to show and integrate their emotions into the dispute resolution process. When asked about the negative experiences on their paths to justice, most disputants bring in the capsulated and technical character of the online mediation. A female respondent shared that “Such types of problems have to be approached in a more personal manner.” Another respondent from the opposite gender added a similar comment: “[I will not use online mediation in the future] because I prefer to look the other party in the eyes as I talk. By this way [e-mail exchange] you can never make it clear what you mean. I find it distant. At the end it was quite disappointing for me.” In a similar way another male responded: “Because it is very difficult to tell clearly your story only with words, it is possible that the other party reads a different story.” Apparently, some disputants want the other party to see and understand how they feel and how they view the problem. Many
different factors could influence a person’s need to express emotions in a procedure. Personal traits, state of the relationship with the other party and the level of complication of the problem are just a few of the factors that might boost or inhibit the need to expose and share one’s feelings. Therefore, the claim that ODR allows people to focus on the issues that need to be settled and to disregard the accompanying emotions might not be an advantage for all disputants. In some instances, ODR could yield positive results but in other situations or among different parties it could be seen as a disadvantageous dispute resolution procedure. However, it is important to mention that the vast majority of the participants was very satisfied with the online mediation.

**Limitations of the study**

Selection bias is the most serious limitation of the study. As we discussed above, the couples who preferred to enter into this experimental mode of ODR were most likely dealing with systemically different disputes as compared to the general population of divorcees. These differences inevitably influence the attitudes towards the procedure and its outcomes. The second limitation of the research is the lack of rigorous data on the major properties of the dispute. More information about the value at stake and the other important dimensions of the dispute (i.e. duration of marriage, number and age of children, value of communal property) are critical for better insights and interpretation of the findings on the perceived costs, quality of the procedure and quality of the outcome. Third, due to privacy concerns we were not able to obtain information about the objective outcomes of the individual cases. Access to this information would make it possible to better place the perceived quality of the procedure and quality of the outcome into the context of the particular dispute.

**5. Conclusion**

Online mediation is a meaningful way of providing legal assistance and solutions to legal problems. Most of the respondents in our study were not assisted by lawyers but only relied on their own abilities and on the skills of mediators to reach an agreement (covenant) over the issues which were raised by the divorce. In general, the experience was viewed as positive both in procedural and outcome terms. Interestingly, both parties had equal views about the quality of the procedure and the quality of the outcome. In a contested procedure like divorce this is a significant positive indication that the approach piloted by the Dutch Legal Aid Board has potential to solve legal problems in a fair and just manner.

There are at least two challenges for ODR as a means of dispute resolution. First, even in the most technologically advanced societies, people with limited resources are less likely to benefit from the legal services and information delivered on internet or other ICT channels. The second challenge concerns the capability of online processes to incorporate the negative emotions of the disputing parties. Our data indicate that women are more likely to experience stress, damage to important relationships and negative emotions as a result of the procedure. This could mean that the impersonal mode of communication in ODR has more discouraging effect to women than to men. However, other fields of technological advancements in the everyday life such as social media

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51 MELINA BUCKLEY, Moving Forward on Legal Aid: Research on Needs and Innovative Approaches (2010).
clearly demonstrate that this shortcoming could be surmounted with creative approaches and solutions.