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**A Courtroom Experiment with Bankruptcy Litigants:  
Implications for Insight into Perceived Procedural Justice and Trust in Judges**

Liesbeth Hulst  
Faculty of Law  
VU University Amsterdam

Kees van den Bos  
Department of Psychology and School of Law  
Utrecht University

Arno J. Akkermans  
Faculty of Law  
VU University Amsterdam

E. Allan Lind  
Fuqua School of Business  
Duke University

Author Note:

Address correspondence to Liesbeth Hulst, Faculty of Law, VU University Amsterdam, De Boelelaan 1105, 1081 HV Amsterdam, The Netherlands. E-mail: l.hulst@vu.nl. Phone: +31 20 59 83306.

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**Abstract**

In this paper, we examine a previously unexamined psychological explanation of why procedural justice is important for trust in legal authorities. Using a randomized controlled courtroom experiment on litigants at bankruptcy hearings we investigate one of the reasons why procedural justice experienced in the litigation can be strongly associated with litigants' trust in judges. We argue that because litigants try to make sense of what is happening at their hearings, they will tend to pause and check what is going on in the courtroom. As a result of these “pause-and-check” reactions, litigants' trust in judges is affected by their perceptions of how fairly and justly judges in the courtroom have treated them. This explanation implies that an experimental manipulation weakening these pause-and-check reactions should attenuate the positive association between perceived procedural justice and trust in judges. The results of our experiment with actual Dutch litigants support this line of reasoning. These findings have implications for the understanding when people will and will not trust the judiciary and the role that perceived procedural justice plays in this issue.

Keywords: Procedural Justice; Trust; Legitimacy; Bankruptcy; Insolvency; Behavioral Inhibition

## **A Courtroom Experiment with Bankruptcy Litigants:**

### **Implications for Insight into Perceived Procedural Justice and Trust in Judges**

In this paper, we examine how people respond to court hearings on the basis of which important decisions are made about their financial situation and financial future. In particular, we focus on the issue of why and when perceptions of how fairly and justly litigants feel they have been treated by individual judges during bankruptcy court hearings are positively associated with their trust in the judges in their country. This link between procedural justice judgments in court and trust in judges is an important example of how people's procedural justice perceptions can affect other attitudes and behaviors (for reviews, see, e.g., Folger, 1977; Tyler, 2006; Tyler & Huo, 2002; Walker, LaTour, Lind, & Thibaut, 1974). We studied this positive association between procedural justice perceptions and trust judgments using a randomized controlled field experiment that we conducted on litigants in bankruptcy court hearings. In the experiment we examined one of the psychological processes underlying the association between perceived procedural justice and trust in judges. Understanding this process in such detail that we can both replicate and attenuate the link between procedural justice and trust judgments in the same study would help us to understand when and why the link between procedural justice perceptions and judgments of trust in societal authorities occurs.

### **Trust and Legitimacy**

It is important for any democratic society that citizens trust their institutions of justice. It is through such trust that citizens confer legal institutions with the legitimacy that the justice system needs to exist and operate effectively (e.g., European Social Survey, 2011; Tyler, 2006). A central element of the legitimacy of the judiciary is people's trust in judges and their confidence that judges will exercise their authority in an honest and a sincere manner (e.g., Tyler & Huo, 2002; Tyler & Jackson, 2014; see also Hough, Jackson &

Bradford, 2013). People's judgments of trust in judges are important because trust judgments can shape people's willingness to accept judicial authority and their deference to and compliance with the decisions made by judges (Tyler, 2006). It should not come as a surprise, therefore, that national and international governmental organizations measure public trust in the courts and other societal institutions (see, e.g., TNS Political & Social, 2013). Judicial authorities and governments in many Western countries have undertaken major policy initiatives to enhance trust in judges, often by seeking to modernize the court system (e.g., Judicial Council of California, 2006; Leben, 1999; National Center for State Courts, 1999, 2000, 2005; Raine, 2000; Roberts & Indermauer, 2009).

In this paper we study a potentially important and previously unexamined psychological explanation of why litigants' judgments of trust in the judiciary can be strongly linked with their perceptions of procedural justice experienced in the handling of their court cases. We tested this explanation in a context of the Dutch legal system that we think is interesting for the present purposes.

### **Litigants' Reactions to Bankruptcy Court Hearings**

In the randomized controlled field experiment that we conducted in district courts in the Netherlands, our participants were actual court litigants who had been ordered to appear at a court hearing because they had requested (under the Dutch Bankruptcy Act) that the district court provides a legal solution to their financial problems. This legal solution takes the form of a discharge of unpaid debts in exchange for a multiyear period of payments on those debts. Thus, there is a lot at stake for these litigants. If the court approves their petition, they can be discharged from their unpaid debts, but there is no quick discharge of indebtedness. To earn this fresh start, these debtors are first required to, over a three-to-five-year period, devote all of their disposable income to repayment of creditors and make their best efforts to pay off as much of the debts as possible. If the court denies the debtor's

petition, his or her debts remain.

In formal Dutch legal terms, our litigants had requested a court ruling allowing them access to a legal scheme of “debt adjustment of natural persons” on the basis of Articles 284-362 of the Dutch Bankruptcy Act. In accordance with literature and legislation in this area, we use the better-known term “bankruptcy” interchangeably with the phrase “debt adjustment” since both (personal, individual, or consumer) bankruptcy and debt adjustment refer to a formal legal response to an individual’s inability to service his or her debt burden (World Bank Report, 2012; see also Kilborn, 2011). The court hearings in Dutch bankruptcy courts that we study here resemble the processes and legal practices in various other nations and in other legal fora that rule on the insolvency of natural person debtors (see, e.g., Kilborn, 2006, 2011; World Bank Report).

In this real-world context of bankruptcy court hearings on the basis of which the court takes important decisions about litigants’ financial situation and financial future, we measured the level of perceived procedural justice litigants experienced in their court hearing. We also assessed the litigants’ trust in judges in the Netherlands. We measured these variables by means of a paper-and-pencil questionnaire that all participants completed on a voluntary basis immediately after their court hearings had taken place.

### **The Role of Perceived Procedural Justice**

A variety of studies conducted over the past several decades have shown that higher perceptions of procedural justice are often strongly linked with higher levels of trust in authorities (for reviews, see Lind & Tyler, 1988; Thibaut & Walker, 1975; Tyler, 2006; Tyler & Huo, 2002; Tyler & Lind, 1992). But why is it that people’s procedural justice perceptions have a positive association with trust in judges and other important reactions? A number of psychological explanations have been offered for why procedural justice is important.

One of the oldest explanations is an instrumental account and suggests that people

want to have control over the decision or over the process that leads to the outcome decision so that they can make sure that the ultimate outcome is fair or favorable to them (Thibaut & Walker, 1975; Walker, Lind, & Thibaut, 1979; see also Shapiro & Brett, 2005). Early accounts of the importance of procedural justice also include explanations that emphasize processes of social influence (e.g., Greenberg & Folger, 1983) and referent cognitions (Folger, 1986).

The relational model provides another explanation. This model highlights that individuals care about procedural justice because procedural justice conveys a message to justice recipients about their relationship with the entity enacting justice, especially with respect to their inclusion in the group (Tyler & Lind, 1992; see also Lind & Tyler, 1988). Thus, it has been suggested that procedural fairness has important informational value for citizens interacting with legal authorities (Tyler, 2006) and that procedural fairness helps people to evaluate how societal authorities regard them (Tyler & Lind, 1992).

In the current paper we propose a psychological process that may be underlying the earlier explanations of why procedural justice is important. Our explanation of what is happening psychologically posits that perceived procedural justice plays an important role when people are busy trying to find out what is going on and how to behave in confusing social situations (Van den Bos, 2015; Van den Bos & Lind, 2009).

We note that in novel, unsettling, or otherwise confusing situations, people become quite attentive to their surroundings as they try to make sense of what is going on and how to behave and decide what the appropriate behavior would be (Van den Bos & Lind, 2013). As a result, people tend to pause momentarily ongoing action to allow for the processing of potentially useful information and cues on what is going on and how to behave (Aron, Aron & Jagiellowicz, 2012; Van den Bos, 2015). In cognitive psychology, these pause-and-check reactions are termed “inhibition effects,” since ongoing patterns of behavior are inhibited as

information is checked and attitudes and behaviors are processed and re-linked (for an overview, see Van den Bos & Lind, 2013).

On the basis of this line of reasoning we propose in this paper that litigants who appear at bankruptcy court hearings will try to make sense of what is going on in the courtroom. As a result, they will tend to pause and check what is happening and how they should react. We further note that perceived procedural justice reveals important information about what is going on in the courtroom. Therefore, we argue, pause-and-check processes may constitute one of the reasons why trust in judges is positively associated with perceived procedural justice. When these pause-and-check processes are active, the perceived presence or absence of procedural justice is a feature of the experience that the litigant can use to make sense of what is going on and it therefore affects other judgments. In the current research we examine the implications of this line of reasoning.

In psychological terms, our line of reasoning suggests that during their bankruptcy court hearings litigants will inhibit ongoing behavioral action and will activate the behavioral inhibition system (Carver & White 1994; Gray & McNaughton 2000). There is a quite substantial body of psychological research and theory that suggests that the behavioral inhibition system is a fundamental psychological system that facilitates sense-making processes (see, e.g., Gable, Reis, & Elliot, 2000; Van den Bos & Lind, 2013).

Moreover, we note that our line of reasoning implies that when an experimental manipulation would deactivate people's behavioral inhibition system (as can be done, for instance, by experimentally reminding people about having acted without behavioral inhibitions; see Van den Bos, Müller, & Van Bussel, 2009), then they would be less likely to engage in sense-making and less likely to rely on salient situational cues such as their perceptions of procedural justice. Arguably, then, such an experimental manipulation that has been shown to deactivate people's behavioral inhibition system should attenuate the positive

association between perceived procedural justice and trust in judges.

To test this research hypothesis, the current research makes use of a recently developed manipulation that does precisely this. It weakens the activation of the behavioral inhibition system without affecting other potentially relevant constructs (Van den Bos et al., 2009; Van den Bos, Lind, Bommelé, & VandeVondele, 2015; Van den Bos, Müller, & Damen, 2011; Van den Bos, Van Lange, et al., 2011). We used this manipulation to study the implications for understanding why and when perceived procedural justice is important for trust in judges in litigants' reactions to bankruptcy court cases.

### **The Current Research**

We conducted a randomized controlled field experiment with actual litigants. In this experiment, the litigants were randomly assigned to a control condition or to an experimental condition.

In the control condition, participants were invited to participate in the study. After having indicated their willingness to participate these participants entered their court hearing in the way litigants normally do, absent any further interventions. After their court hearing had taken place, we interviewed these participants and assessed their perceptions of how fairly and justly they have been treated by the judges in the courtroom and how much trust they have in the judges in their country. On the basis of our line of reasoning and earlier literature on procedural justice (e.g., Lind & Tyler, 1988; Tyler, 2006; Tyler & Huo, 2002), we expected to find in this control condition a substantial positive association between litigants' perceptions of procedural justice and their trust in the judges in the Netherlands.

In the experimental condition, participants were invited to participate in the study. After having indicated that they would be willing to participate, these participants were invited to answer three simple open-ended questions that asked them to think back about situations in which they did not care or cared little about what others thought of their actions



(Van den Bos et al., 2009; Van den Bos, Van Lange, et al., 2011). After answering these questions (that only took 1 or 2 minutes of their time) participants entered their court hearing after which they were interviewed in the same manner as participants in the control condition.

The experimental manipulation of completing these three short questions has been used and tested in earlier research studies in a variety of contexts (Van den Bos et al., 2009, 2015; Van den Bos, Müller, & Damen, 2011; Van den Bos, Van Lange, et al., 2011). This manipulation has been shown to significantly lower state behavioral inhibition (see Van den Bos et al., 2009). Furthermore, the manipulation has been shown to not influence other related psychological constructs such as state behavioral activation, positive and negative affective states, self-monitoring, experienced accountability, or self-awareness (see Van den Bos et al. 2009; Van den Bos, Van Lange, et al., 2011). The effects of the manipulation did not interact with gender in the earlier studies in which this manipulation has been used (see Van den Bos et al. 2009, 2015; Van den Bos, Müller, & Damen, 2011; Van den Bos, Van Lange, et al., 2011).

On the basis of what we have proposed here we are predicting that following the experimental manipulation litigants' need to rely on their experience of procedural justice should decrease. Thus, if our line of reasoning laid out above has merit, we should observe an attenuation of the positive association between perceived procedural justice and trust in judges in the experimental condition compared to what is seen in the control condition.

## **Method**

### **Participants and design**

Participants were 58 individuals who appeared at a court hearing pertaining to their request to be admitted to a legal system of debt adjustment under the Dutch Bankruptcy Act. The participants appeared before the District Court Central

Netherlands between May 27 and December 18, 2013. The Council for the Judiciary and the board of the District Court Central Netherlands had approved the study.

Participants were randomly assigned to either the control or experimental conditions. Between 27 and 30 participants took part in each of the conditions. Participants participated voluntarily in the study. There were 28 women and 30 men in the sample. Participants' ages varied between 21 and 62 years and the mean age was 40.84 years ( $SD = 10.93$ ). Participants' educational levels varied between primary school (5 participants, 8.8% of the sample), junior pre-vocational or general secondary education (26 participants, 45.6% of the sample), senior general or vocational secondary education (19 participants, 33.3%), and pre-university secondary education, or university of applied sciences, or university (7 participants, 12.3% of the sample). One participant did not indicate her educational level.

### **Experimental Procedure**

All participants appeared at a court hearing following their petition for a court ruling on the basis of the Dutch Bankruptcy Act for access to a system of debt adjustment regarding their inability to pay their debts. There were no other parties (such as creditors) involved in the court hearings and participants did not have legal representatives. All participants were waiting in the hallway of the court building prior to their court hearing when approached by the experimenter. The experimenter informed participants that we were studying how people experience court hearings and asked for their participation in the study. Participants were informed that participation was entirely voluntary and that it involved completing some questions in anonymous questionnaires.

For participants in the control condition, we measured what happens in the natural setting of the bankruptcy courtroom, absent of interventions taking place before

participants entered the courtroom. Thus, the control condition assessed litigants' perceptions of procedural justice and trust in judges as normally experienced by litigants.

Participants in the experimental condition completed three brief open-ended questions prior to entering their court hearings. The experimental manipulation asked them to recall a time when they had acted without caring much about what other people thought of their behavior. Specifically, the three open-ended questions were as follows: "Please briefly describe a situation out of your own life in which you acted with no inhibitions," "Please briefly describe how you behaved in the situation in which you acted with no inhibitions," "Please briefly describe the emotions that you experienced when you acted with no inhibitions." As noted, this experimental manipulation has been found to prompt a state of less behavioral inhibition (Van den Bos et al., 2009) and has been used and tested in a variety of earlier studies in diverse contexts (Van den Bos et al. 2009, 2015; Van den Bos, Müller, & Damen, 2011; Van den Bos, Van Lange, et al., 2011). The experimental manipulation was administered in paper-and-pencil format, and completed in the hallway while participants were waiting for their court hearing. After a few minutes, the experimenter re-appeared to collect the envelope in which participants had put their completed questionnaires. Typically, during the experimental manipulation participants wrote down answers that refer to having behaved in social settings without public constraints. For example, participants wrote about being with their family and about feeling free and at ease (see also Van den Bos et al. 2009; Van den Bos, Van Lange, et al., 2011).

The hearings lasted between 15 and 30 minutes. Immediately after their court hearing had ended, participants in both conditions completed the post-hearing questionnaire in a separate room where the experimenter had been waiting for them.

The post-hearing questionnaire started with measures of the level of procedural justice experienced in the court hearing and then assessed our main dependent variable, trust in the judges in the Netherlands.

In this post-hearing questionnaire, we measured participants' procedural justice perceptions by using an adaptation of Moorman's (1991) scale for perceived procedural justice. Compared to the original Moorman scale, we used less abstract wording to ensure that items would be clear to our sample of bankruptcy litigants. Specifically, the five items that we used to assess perceived procedural justice were as follows: "I think the judge used all necessary information", "I think the judge treated me in the same way as others", "I think the judge made a good assessment between my concerns and the concerns of others", "I think the judge gave me a good explanation about his decision", and "I think the judge responded in a good way when I had questions". Answers on these items were averaged to form a reliable scale of procedural justice judgments ( $\alpha = .75$ ). All ratings in this study were made on 7-point Likert-type scales (1 = *not at all*, 7 = *very much*).

Our main dependent variable was a measure of trust in the judges in the Netherlands, which we assessed asking participants to what extent they agreed with the following statements: "I have the feeling that the judges in the Netherlands can be trusted", "I trust that Dutch judges take honest decisions", and "I think that the judges handle their tasks in a sincere manner". Participants' answers were averaged to form a reliable scale of their judgments on trust in judges ( $\alpha = .89$ ). On completion of the post-hearing questionnaire,<sup>1</sup> participants were thanked for their participation in the research.

## Results

### Perceived procedural justice

We first conducted a General Linear Model (GLM) analysis with the experimental manipulation as a dichotomous independent variable and perceived procedural justice as dependent variable to exploratively assess whether the manipulation influenced procedural justice perceptions. This analysis showed that procedural justice ratings were not influenced by the experimental manipulation,  $F(1, 44) < 1, p > .54, \eta_p^2 = .01$ . Participants experienced a high degree of procedural justice in their court hearing, yielding an average score of 6.35 on the 7-point scale with a standard deviation of 0.70. Inspection of the average responses showed that 98.0% of the participants experienced the hearing as procedurally fair (indicated by an average score of 5 or higher). In fact, 39.2% awarded 7 points, the highest score, and 33.3% awarded an average score of 6 or higher (but not 7). Only 2% of the participants awarded an average score of 4 or higher than 4 but lower than 5. None of the participants gave ratings of perceived procedural justice below the midpoint (4) of the scale. Hence, the vast majority of participants indicated they experienced a high level of procedural justice in the interaction with the judge in their court hearing.<sup>2</sup>

### Trust in judges

Our main analysis was a GLM analysis with the experimental manipulation as a dichotomous independent variable, perceived procedural justice as a continuous independent variable, and trust in judges as dependent variable. This analysis revealed a main effect of perceived procedural justice,  $F(1, 42) = 7.58, p = .009, \eta_p^2 = .15$ , a main effect of the experimental manipulation,  $F(1, 42) = 5.39, p = .025, \eta_p^2 = .11$ , and a significant interaction effect between the experimental manipulation and perceived procedural justice,  $F(1, 42) = 5.32, p = .026, \eta_p^2 = .11$ .<sup>3</sup> Figure 1 illustrates these

effects.

The main effect of procedural justice showed higher levels of trust in Dutch judges with increased levels of perceived procedural justice. The main effect of the experimental manipulation indicated more trust in judges in the control condition than in the experimental condition. Most relevant to our research hypothesis, these main effects were qualified by the significant interaction effect between participants' procedural justice judgments and the experimental manipulation. We conducted follow-up analyses to examine this effect.

Specifically, we used simple slope analyses to test whether perceived procedural justice was significantly associated with trust in judges within each condition of our experimental design (see Aiken & West, 1991, for the grounding of this procedure). As predicted, within the control condition perceived procedural justice was strongly and significantly associated with trust in judges,  $\beta = .71$ ,  $t = 4.91$ ,  $p < .001$ . In further accordance with predictions, within the experimental condition perceived procedural justice was not significantly associated with trust in judges,  $\beta = .06$ ,  $t = 0.24$ ,  $p = .810$ .

Thus, as can be seen in Figure 1, there was a strong, statistically significant association between perceived procedural justice and trust in judges for participants in the control condition. The finding that in our control condition procedural justice was linked reliably to trust is consistent with what would be expected on the basis of the current literature on procedural justice (see e.g., Tyler, 2006; Tyler & Huo, 2002). By contrast, there was no statistically significant association between perceived procedural justice and trust in judges for participants in the experimental condition; the link between procedural justice and trust was not found there. Hence, following the experimental manipulation that asked participants to complete three questions about not caring strongly about what others think of

their behaviors the positive association between perceived procedural justice and trust in judges attenuated in a significant and predictable way.

In terms of simple correlations, we note that trust in judges was significantly correlated with perceived procedural justice in the control condition,  $r(26) = .67, p < .001$ . In contrast, trust in judges was not significantly correlated with perceived procedural justice in the experimental condition,  $r(20) = .09, p = .72$ . The difference between these correlations was significant,  $z = 2.27, p < .05$ .

In order to examine the relative importance of fair and unfair procedural treatment we also conducted a GLM analysis that examined the effect of the experimental manipulation on trust in judges at high levels of perceived procedural justice (estimated at 1 standard deviation above the mean of the procedural justice scale) and low levels of perceived procedural justice (estimated at 1 standard deviation below the mean of the procedural justice scale; see Aiken & West, 1991, for the grounding of this procedure). This analysis demonstrated that for those who had experienced high levels of procedural justice in their court hearing there was a significant effect of the experimental manipulation, such that participants in the control condition reported more trust in judges ( $M = 6.85, SE = .25$ ) than participants in the experimental condition ( $M = 5.52, SE = .31$ ),  $F(1, 42) = 11.26, p = .002$ ,  $\eta_p^2 = .21$ . For those participants who experienced relatively low levels of procedural justice in their court hearing there was no statistically significant effect of being exposed or not to the experimental manipulation on trust in judges ( $M = 5.39; SE = .29$  vs.  $M = 5.33; SE = .30$  respectively),  $F(1, 42) = 0.22, p = .88, \eta_p^2 = .001$ . These findings provide additional support for our line of reasoning and the implications of these results will now be discussed.

## Discussion

The current randomized controlled experiment among actual court litigants of bankruptcy court hearings provides insights to a previously unexplored psychological explanation of why there is a link between perceived procedural justice and trust in societal authorities. In accordance with our predictions in the control condition, where litigants went into hearings as they usually do, higher levels of perceived procedural justice were found to be strongly and significantly associated with higher levels of trust in the judges in the Netherlands. This finding fits with the proposition put forward in the field of law and human behavior that people's experience of perceived procedural justice in encounters with individual judges and police officers is important for their trust in legal authorities and other important reactions (see e.g., Tyler, 2006; Tyler & Huo, 2002). In contrast, when litigants were exposed to a subtle experimental manipulation before they entered their court hearing, the association between perceived procedural justice and judgments of trust in the judges in the Netherlands was found to attenuate, and in fact was not statistically significant. This experimental attenuation of the classic link between procedural justice and trust was obtained simply by asking litigants to complete three open-ended questions that reminded them about having behaved without inhibitions.

Findings from the current experimental study provide insight into precisely why procedural justice matters when people are forming judgments of trust in societal authorities. We argue above that because litigants are often trying to make sense of what is going on and how to behave at their court hearings, they will tend to inhibit ongoing action and activate the behavioral inhibition system to facilitate processes of sense making (Van den Bos & Lind, 2009, 2013). As a result of the behavioral inhibition system activation, we argue, litigants' perceptions of trust in judges are likely to be affected their perceptions of procedural justice. As we have noted, the experimental manipulation that we used here among actual court



litigants has been shown to reliably lower the state of behavioral inhibition (Van den Bos et al., 2009) and has no effects on other relevant constructs (Van den Bos, Van Lange, et al., 2011). Thus, the absent link between perceived procedural justice and trust in judges that we found in the experimental condition can be explained by the logic that lowering activation of the behavioral inhibition system attenuates the positive association between perceived procedural justice and judgments of trust in judges. More generally, this field experiment is among the first to yield strong empirical evidence that activation of the behavioral inhibition system is one of the factors that can explain the positive association between perceived procedural justice and trust in societal authorities.

The attenuation of the positive association between perceived procedural justice and judgments of trust that we found in the experimental condition is especially telling given that strong and reliable links between procedural justice and other reactions have been documented in many other (albeit often non-legal) settings. Our control condition findings are in accordance with these earlier results (see, e.g., Tyler, 2006; Tyler & Huo, 2002). The suggestion that follows from our experimental condition findings is that with the current experimental manipulation we were able to switch off a robust procedural justice phenomena, namely that litigants are influenced by procedural justice when forming judgments of trust in judges. In other words, it seems we were able to turn the knobs of what drives people to be influenced by perceived procedural justice in their encounters with legal authorities.

Our findings indicate that our rather subtle mindset manipulation, which has been tested and used in a variety of earlier studies in different contexts including the psychology laboratory, shopping malls, and train stations (Van den Bos et al., 2009, 2015; Van den Bos, Müller, & Damen, 2011; Van den Bos, Van Lange, et al., 2011), also worked in a court environment with actual court petitioners. Viewed in this way, we think these results can serve an important role in the recent discussion on the robustness of priming effects (see

Kahneman, 2012) as the current subtle priming manipulation had reliable effects on reactions of litigants in actual court hearings.

The basic pattern of findings of the current study among court litigants is consistent with findings in two other independent experimental studies. In these studies (Hulst, Van den Bos, & Akkermans, 2015), participants were experimentally reminded of having acted with inhibitions by means of open-ended questions similar to the experimental manipulation used in the current study. Following this inhibition manipulation, participants showed more positive responses following the presence of opportunities to voice their opinions and more negative responses following the absence of those opportunities, compared to participants in a control condition who had been asked neutral questions. These findings were obtained in scenario studies, so they should be interpreted with caution. This noted, the data from these studies provide support for our line of reasoning that behavioral inhibition system activation acts as one of the factors that can explain why people tend to be strongly influenced by perceived procedural justice. Higher levels of behavioral inhibition may lead people to become more sensitive to what happens in their social surroundings, and as a result, react more strongly to procedural justice.

Findings of the current courtroom experiment also match a series of other experimental studies that consistently implied that activation of the behavioral inhibition system leads people to be more heavily influenced by situational demands (Van den Bos et al., 2009, 2015; Van den Bos, Müller, & Damen, 2011; Van den Bos, Van Lange, et al., 2011; Van den Bos & Lind, 2013). For example, inhibited participants were more likely to refrain from help in bystander situations (Van den Bos et al., 2009) and were more likely to be pleased with favorable but undeserved outcomes (Van den Bos, Van Lange, et al., 2011) than disinhibited participants. The present courtroom study fits with that earlier body of research in suggesting that higher levels of behavioral inhibition lead people to be more

heavily influenced by what happens in their social environment (in the current study, how fairly and justly a judge is treating them).

The suggested psychological processes of activation of the behavioral inhibition system as one of the factors that can explain people's reactions to procedural justice might underlie existing explanations of why procedural justice is important, including the relational model of procedural justice (Tyler & Lind 1992; see also Lind & Tyler, 1988). As such, our findings, and the line of reasoning that experiences of procedural justice play a role in processes of sense making, elaborate, rather than contradict, the Tyler and Lind (1992) analysis. Future research is obviously needed to assess empirically the possible relationship between the relational model of procedural justice and our inhibition explanation of the link between procedural justice and trust in judges. For now we argue that the present findings are not inconsistent with the existing procedural justice literature, but instead may help to provide a deeper understanding of this literature.

The specific pattern of findings that we obtained (see Figure 1 and the last analyses reported above) would suggest that increased trust in judges is linked with higher levels of procedural justice, rather than low levels of trust in judges being linked with low levels of perceived procedural justice. If this pattern is replicated in future research, it would fit with the basic idea in procedural justice research and theory that the positive message of inclusion that comes from fair procedural treatment is very important (Lind & Tyler, 1988; Tyler & Lind, 1992). Obviously, future research is needed to substantiate and explore this possible implication of our findings.

The current study can also help to predict conditions under which trust in judges is likely to be less strongly linked to litigants' procedural justice perceptions. Our line of reasoning is that one of the factors that can explain the link between trust in judges and procedural justice is the fact that litigants are likely to be in a state of behavioral inhibition,

the result of being in a confusing situation in which they want to make sense of what is going on. It is likely that in many formalized legal contexts (e.g., court or police hearings) activation of the behavioral inhibition system is the rule rather than the exception, which would mean that judgments of trust will be linked with procedural justice perceptions most of the time. But activation of the behavioral inhibition system may well be less strong for people for whom interactions with the court are less confusing and who are less busy trying to understand what is going on. This would be the case, for example, with people with substantial experience and familiarity with the courts. This brings us to a discussion of the limitations of the current study and the possible directions for future research.

### **Limitations and Directions for Future Research**

We acknowledge that the associations we report between participants' procedural justice ratings and their judgments of trust in judges are correlational. Thus, it remains possible that higher levels of trust in judges lead to higher ratings of procedural justice rather than vice versa. In our line of reasoning, we build on existing research that has demonstrated that people's perceptions of procedural justice affect their subsequent reactions (a general phenomenon termed the "fair process effect"; see, e.g., Folger, 1977; Walker et al., 1974). The statistically nonsignificant link between procedural justice and trust in judges that we found in the experimental condition is consistent with our line of reasoning. We predicted that when an experimental manipulation lowers behavioral inhibition, then sense-making processes are less engaged and people do not rely on perceived procedural justice in forming their judgments of trust in judges. As noted earlier, our experimental manipulation did not affect procedural justice ratings. This suggests that procedural justice judgments are generated by processes that are psychologically different from trust judgments (see also Lind, 2001).

In the current study, we compared the way in which litigants normally react to bankruptcy court hearings with what happens when behavioral inhibition is lowered experimentally. Future research studies among court litigants could also use other control conditions to examine the assumed processes in detail (see Van den Bos et al., 2009, 2015; Van den Bos, Müller, & Damen, 2011; Van den Bos, Van Lange, et al., 2011). This noted, the current experimental manipulation builds on previous research and theory on the working of the behavioral inhibition system as playing a central role in processes of sense-making, and the assumption that activation of this psychological system is instigated by various stimuli that trigger general sense-making processes (Aron & Aron, 1997; Gable et al., 2000; Kagan, 1989; Van den Bos & Lind, 2013). The idea behind our experimental manipulation was to adapt participants' current mindsets to a state of moderate behavioral disinhibition (Van den Bos et al., 2009; Van den Bos & Lind, 2013). The manipulation reminded participants about some behaviors they had performed earlier. It seems likely that the effects of this "mindset" manipulation was predominantly perceptual rather than affecting litigants' behavior in the courtroom, which fits with the view that important components of the psychology of procedural justice have to do with how people perceive fair and unfair treatment by important societal authorities (Tyler & Lind, 1992; Van den Bos & Lind, 2013).

The current research is fundamentally aimed at exploring the psychological processes that underlie the importance of procedural justice with respect to trust. It is not a test of some new policy or practice. We certainly do not mean to suggest that the process of disinhibition that we experimentally manipulated is "right" or "recommendable" or that it should or could be used as a new standard approach to legal procedure. Neither do we suggest that a state of behavioral inhibition, and the link between procedural justice and trust, is normatively right. In contrast, by experimentally lowering behavioral inhibition in a subtle, mindset-inducing way, we aimed to gain insight into an underlying psychological process that may explain why

trust in judges is linked with perceived procedural justice.

In fact, what we did in this controlled experiment may be compared to zero gravity experiments in physics. That is, just as physicists conduct experiments in space to study gravity by examining phenomena in conditions in which the force of gravity does not hold, our aim was to test how something works in real life (in this case perceived procedural justice) by trying to attenuate by experimental manipulation the strong associations this construct normally has with other constructs (in this case trust in a country's judges). By thus calling attention to a previously unexamined psychological explanation of the link between procedural justice and trust judgments, our study provides new insights in the psychology of procedural justice and trust in societal authorities in people's interactions with legal authorities. We hope that the results presented here will stimulate future endeavors to examine the robustness and the generalizability of the current findings.

### **Conclusion**

In order to better understand why litigants' trust in judges is influenced by their perceptions of procedural justice, we examined a conceptual connection between the psychology of behavioral inhibition and disinhibition and the often-observed link between procedural justice and judgments of trust. Specifically, we suggested that litigants in legal contexts are often psychologically inhibited as they are trying to make sense of the situation, and that this leads them to rely on procedural justice as a salient situational cue. In this study among actual court litigants, trust in judges was found to be strongly and reliably associated with perceived procedural justice in the control condition which resembled the default setting in which the bankruptcy court hearings normally take place. Following a rather subtle experimental manipulation that had been shown to weaken people's state behavioral inhibition, the association between trust in judges and procedural justice was attenuated and was not statistically significant. Taken together, these findings suggest that the link between

procedural justice and trust in judges exists in part because litigants are engaged in pause-and-check processes and are behaviorally inhibited.

These findings enhance our understanding of how litigants react to courtroom interactions and how they come to trust the courts. When litigants appear at their court hearings, this tends to be a situation in which they are trying to understand what is going on. Therefore, we argue, litigants will rely on the way they are treated by judges as a thermometer for what is happening at their court hearing and the trustworthiness of judicial authorities. Policy implications of our work arise from application of this theoretical perspective to some current innovations in legal procedures. For example, our line of reasoning and the findings reported here have implications for ongoing modernizations that may aim to bring court systems more in line with citizens' needs.

Our work suggests that court procedures that succeed in promoting litigants' perceptions of procedural justice are likely to serve as a guide for litigants who are trying to make sense of what is happening in their interaction with the court, and promote litigants' trust in judges, especially when the court context is sufficiently unfamiliar or otherwise instigating sense-making processes that necessitate the activation of the behavioral inhibition system. We note that we conducted the study to test theoretical propositions in the psychology of justice, not to test policy innovations, but one interesting, and rather surprising, possible implication of our findings is that often observed fair process effects on trust in the judiciary, perceived legitimacy, or acceptance of decisions might not occur if litigants feel too much at ease in their hearings. Of course, these speculations are based on the theoretical implications of just one experiment, but they do suggest that future policy research needs to look not only at the procedural justice impact of new procedures and practices, but also at the extent to which improvements in perceived procedural fairness carry over to other important attitudes and behaviors.

To conclude, by being able to both replicate and attenuate the link between procedural justice and trust judgments in the same study, the current paper helps to understand when the link between procedural justice perceptions and judgments of trust in societal authorities is likely to be stronger or weaker. The empirical findings thus obtained in our controlled experiment among court litigants suggests that activation of the behavioral inhibition system is one of the factors that can explain why and when perceived procedural justice happens to be important for people's trust in societal authorities.



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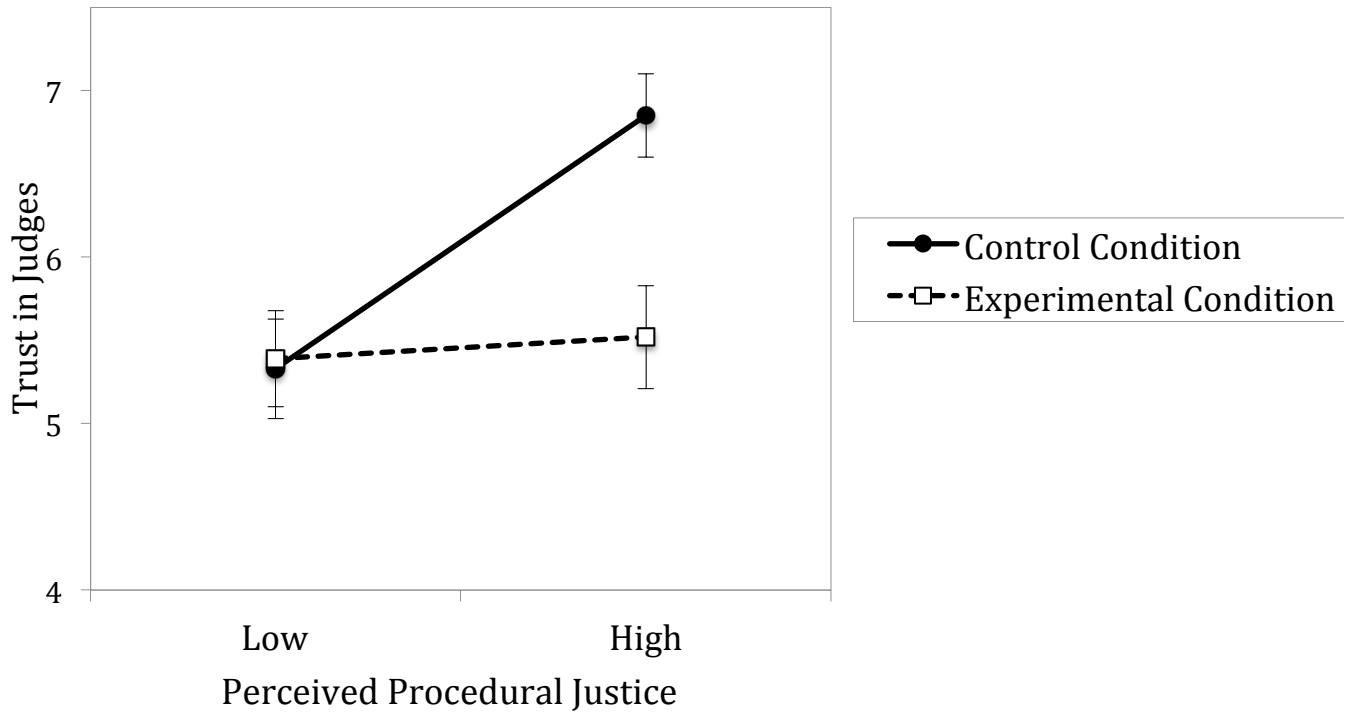
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**Figure 1.** Trust in judges as a function of being reminded (experimental condition) or not being reminded about disinhibited behavior (control condition) and low and high levels of perceived procedural justice.

*Note.* Trust judgments are on 7-points scales with higher values indicating higher levels of trust in Dutch judges. Levels of perceived procedural justice are estimated 1 standard deviation below the mean (low level) and 1 standard deviation above the mean (high level). Error bars represent standard errors of the mean.

### Footnotes

<sup>1</sup> We report all manipulations, all data exclusions, and all measures in the study, so we note that we used 45 items measuring different types of reactions, such as perceived procedural justice, positive and negative feelings about the way participants were treated by the judge, evaluations of the individual judge, willingness to accept the court's decision, willingness to cooperate with the receiver, whether participants had been informed at the hearing whether their application would be approved and (when applicable) participants' reactions to this decision. The items not reported in our findings were included for exploratory purposes, did not affect the effects reported, and are available on request.

<sup>2</sup> Only a minority (22.4%) of the participants had been informed at their hearing what the judge's decision would be, namely that their petition would be approved. In all other cases and in line with court practices (77.6%), participants were told at the hearing that they could phone the court at a given date to find out what the judge's decision would be. Given these court practices, we would have only been able to measure whether the outcome was favorable versus still unknown, and not the conceptually more relevant distinction of whether the outcome was favorable versus unfavorable (Brockner, 2010; Brockner & Wiesenfeld, 1996). Examining the effects whether the outcome was favorable versus unknown was not warranted on statistical grounds.

<sup>3</sup> Inspecting Cook's (1977) distance measure in this analysis (Cohen, Cohen, West & Aiken, 2003) revealed that 2 of the 58 participants showed a distance score of more than 3 standard deviations above the mean. These participants were excluded from the main analyses. Seven other participants had to be excluded because of missing values on the procedural justice scale, two other participants were omitted from the analyses because of missing values on the trust in judges scale, and one participant did not want to answer the

experimental manipulation questions, leaving a total of 46 participants, with 20 to 26 participants in each cell of our design.