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## A COMPARISON OF TWO THEORETICAL MODELS OF PROCEDURAL JUSTICE IN THE CONTEXT OF CHILD PROTECTION PROCEEDINGS

by

Twila Wingrove

#### A DISSERTATION

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## A COMPARISON OF TWO THEORETICAL MODELS OF PROCEDURAL JUSTICE IN THE CONTEXT OF CHILD PROTECTION PROCEEDINGS

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University of Nebraska, 2009

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In this study, the researcher tested two theoretical models of justice in the context of child protection proceedings. Participants read a case file describing a hypothetical child neglect case. The file included the court petition, the caseworker's court report, a summary of the protective custody hearing, and the judge's final order. Within the case file, the researcher manipulated four variables: procedural treatment, interpersonal treatment, severity of child neglect, and assigned role (judge or parent). Results of confirmatory factor analyses suggested that a four-factor model of justice judgments best fit the data. Consistent with the organizational justice approach (Colquitt, 2001) the four latent justice factors were: procedural, distributive, interpersonal, and informational. Distributive justice had the strongest relationship to measured justice outcomes, significantly predicting decision satisfaction, leader evaluation, and predicted legal compliance. The results did not support the group engagement model (Tyler & Blader, 2003) in that perceptions of social identity did not mediate the relationships between procedural justice judgments and predicted legal compliance. Both severity of neglect and assigned decision-making role weakly moderated the relationships between justice judgments and outcomes. The results are discussed in terms of their implications for justice theory and child protection practice.

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#### Chapter 1. Introduction

Since the late 1970s, psychologists have studied the effects of decision-making procedures on decision recipients. Starting with the seminal work of Thibaut & Walker (1975), we have known that perceptions of procedures can have just as much an impact on reactions to decisions as the decisions themselves. In fact, subsequent research has consistently demonstrated that procedural justice has a stronger impact on attitudes and behaviors than distributive justice in many contexts (e.g., Bettencourt, Brown, & MacKenzie, 2005; Tyler, 1984, 2006; Tyler & Blader, 2000; Tyler, Casper, & Fisher, 1989; Tyler, Rasinski, & McGraw, 1985).

Research on procedural justice can be divided into two overlapping categories, one aimed at uncovering the antecedents of justice and the other aimed at uncovering the consequences (Ambrose, 2002). Research on the antecedents of justice has been largely theoretical (e.g., Ambrose & Schminke, 2003; Bies & Moag, 1986; Bies, 2001; Blader & Tyler, 2003; Colquitt, 2001; Colquitt & Greenberg, 2003; Colquitt & Shaw, 2005; Henle, 2005; Johnson, Selenta, & Lord, 2006); the purpose has been to understand how people come about deciding whether something is fair and what aspects of the procedure people rely on in making those determinations. In statistical terms, this body of research has largely been directed toward identifying a measurement model of justice judgments. In contrast, research on the consequences of justice has blended application and theory (e.g., Cropanzano, Howes, Grandy, & Toth, 1997; Cropanzano, Prehar, & Chen, 2002; Masterson, Lewis, Goldman, & Taylor, 2000; Roch & Shanock, 2006; Tyler & Blader, 2003). Researchers have explored attitudinal and behavioral consequences of fairness perceptions in a variety of contexts, from consumer to employment to legal. In statistical

terms, this body of research has been primarily directed toward identifying a structural model of the outcomes of justice.

Until recently, these two bodies of literature have progressed largely independent of each other. However, in recent years, researchers have started moving towards creating theoretical frameworks that include both the antecedents and consequences of justice perceptions. Two approaches stand out. On the one hand, organizational psychologists have posited that that there are three (or four, depending on the researcher) distinct types of justice—procedural, distributive, and interactional (which can be divided into interpersonal and informational)—each reflecting different kinds of concerns or information, and thus, linked to different behavioral and attitudinal consequences (Bies, 2001, 2005; Bies & Moag, 1986; Colquitt, 2001; Colquitt & Greenberg, 2003; Colquitt & Shaw, 2005).

On the other hand, legal psychologists distinguish between only two kinds of justice—procedural and distributive (Blader & Tyler, 2003; Heuer, Penrod, Hafer, & Cohn, 2002; Heuer, Penrod, & Kattan, 2007; Sunshine & Tyler, 2003; Tyler & Blader, 2003). In addition, the latest theoretical model that has come from this approach, called the group engagement model, does not predict the same kinds of differential outcomes. Instead, this model posits that both procedural and distributive justice indirectly predict justice outcomes via their influence on people's sense of identity. Greater perceptions of justice give people a more positive sense of social identity, which makes them more

<sup>&</sup>lt;sup>1</sup> At this point, I should acknowledge that the distinction between "organizational psychologist" and "legal psychologist" is not a firm one. For example, Tyler, one of the most prominent psychologisl justice researchers, has frequently collaborated with organizational justice researchers and tested his theories in the organizational context, (e.g., Bies & Tyler, 1993; Blader & Tyler, 2003; Tyler & Blader, 2009).

likely to have positive attitudes about a decision and engage in group-relevant behavior. Unlike the organizational justice approach, the group engagement model goes further to identify underlying mechanisms or attitudes that link justice judgments to outcomes (see Blader & Tyler, 2005).

This dissertation tested these two theoretical models in an experimental design. I manipulated four variables: procedural treatment, interactional treatment, severity of child neglect, and participant role. The first two manipulations were designed to test the core hypotheses derived from the two theoretical approaches. The second two were designed to test moderator effects. The introduction to the dissertation begins with a literature review and ends with a detailed description of the research questions and hypotheses tested herein. The methods, data analysis, and discussion sections follow, in that order.

#### The Organizational Model of Justice

Colquitt (2001) illustrated what I call the "organizational model of justice" (OMJ), but it should be noted that it was built on a synthesis of years of organizational justice research by a large number of researchers. In fact, Colquitt (2001) takes ownership of the measurement portion of the model, and the associated organizational justice measure that is now widely used (e.g., Chiaburu, 2007; Siers, 2007; Wu, Neubert, & Yi, 2007). However, he treats the fact that the four proposed justice constructs have differential outcomes as merely a validation of the validity of those constructs, rather than a component of a formal theory, as such. Nonetheless, taken together, this work and Colquitt's subsequent writings (2001; Colquitt & Greenberg, 2003; Colquitt, Greenberg, & Scott, 2005; Colquitt, Greenberg, & Zapata-Phelan, 2005; Colquitt & Shaw, 2005;

Scott, Colquitt, & Zapata-Phelan, 2007) provide a cohesive framework for understanding the antecedents and consequences of justice.

#### Measurement Component

The core proposition of the organizational model of justice is that people evaluate four distinct types of justice (measurement component), and each of these judgments is associated with distinct outcomes (structural component; Figure 1.1 on p. 33). The four types of justice are distributive, procedural, interpersonal, and informational. Procedural justice refers to evaluations of the formal decision-making procedure, like whether the process was conducted in an unbiased manner. Distributive justice refers to the fairness of the decision-making outcome, or the decision itself. Both interpersonal and informational justice refer to evaluations of the decision-maker. Interpersonal justice judgments reflect evaluations of the decision-maker's sensitivity, like whether the decision-maker was respectful. Informational justice judgments reflect evaluations of the decision-maker valuations of the decision-maker reflect evaluations of the decision-maker was respectful. Informational justice judgments reflect evaluations of the decision-maker was respectful. Informational justice judgments reflect evaluations of the decision-maker was respectful. Informational justice judgments reflect evaluations of the decision-maker was respectful.

Many of these ideas are not new to the field of justice research. In particular, the distinction between procedural and distributive justice has been present in the literature since Thibaut and Walker (1975) (e.g., Folger & Konovsky, 1989; Leventhal, 1980; Tyler & Folger, 1980). The literature has defined distributive justice in the same terms since then (see, e.g., Cohen-Charash & Spector, 2001; Colquitt, 2001; Folger & Konovsky, 1989; Moorman, 1991). However, the major difference is in how organizational psychologists define the other three justice constructs. It was not until the late 1980s that organizational justice researchers began to consider that their definition of "procedural"

justice" might be confounding distinct types of judgments. In 1986, Bies and Moag proposed that "procedural justice," as defined up until that point, actually consists of two distinct constructs—procedural and interactional justice—with procedural justice referring to evaluations of the decision-making process and interactional justice referring to evaluations of the decision-maker. Today, this distinction has been widely adopted by organizational justice researchers (e.g., Bernerth, Armenakis, Field, & Walker, 2007; De Cremer, van Dijke, & Bos, 2007; Flaherty & Moss, 2007; Forret & Love, 2008; Klendauer & Deller, 2009), and is the predominant measurement model within the organizational justice field.

Colquitt's (2001; Colquitt & Shaw, 2005) contribution to the field is this further distinction between interpersonal and informational justice. In essence, Colquitt (2001) argues that the construct of interactional justice remains too broad, and that people's evaluations of their interpersonal and informational treatment are independent and lead to differential outcomes. Generally, his work (e.g., Colquitt, 2001; Colquitt & Shaw, 2005), as well as the work of others provides mixed support for this distinction (e.g., Kernan & Hanges, 2002; Siers, 2007; Skarlicki, van Jaarsveld, & Walker, 2008; Wenzel, 2006; Wu, Neubert, & Yi, 2007). The empirical support for the OMJ will be discussed in more detail later.

#### Structural Component

The structural component of the OMJ is simply the prediction that each of the four distinct types of justice predict distinct types of outcomes. Specifically, distributive justice is more influential on self-relevant evaluations, like decision satisfaction and approval. In contrast, procedural justice should be more influential on system- or

institution-related outcomes, like organizational commitment and compliance with the decision. Because interpersonal justice is an evaluation of the decision-maker's sensitivity, it ought to be more influential on outcomes like evaluation of the decision-maker as a leader. Finally, informational justice should be more influential on outcomes related to one's group identity, like collective esteem. This last hypothesis is derived from the argument that informational justice conveys a sense of respect from the group, which Colquitt derived from the research of Tyler and colleagues (Tyler & Lind, 1992; Tyler, DeGoey, & Smith, 1996).

It is worth noting that while the model posits that each of the four types of justice predicts specific outcomes, it is silent on whether one type of justice might also influence the outcomes primarily associated with the other types of justice. In other words, while interpersonal justice might most strongly predict leader evaluation, that is not to say that informational justice does not also have some influence on leader evaluation. In fact, given how interrelated justice judgments and outcomes generally are, it would be exceptional if it were not the case that multiple judgments predicted the same outcome. Thus, my interpretation of the model is that it predicts the relative strength of judgment-outcome relationships, rather than absolute or singular relationships.

There is support for this interpretation in the literature. First, the justice contructs themselves appear to be highly correlated. Colquitt (2001) found significant correlations between all four justice constructs, ranging from .17 for the correlation between distributive and interpersonal justice and .64 for the relationship interpersonal and informational justice. In their meta-analysis, Cohen-Charash & Spector (2001) found correlations between distributive, procedural, and interactional justice ranging from .46 to

.55. Second, the research investigating differential outcomes has not consistently produced clean results supporting the absolute relationship hypothesis. For example, Colquitt (2001) found that, in addition to interpersonal justice, procedural justice also predicted leader evaluation. Similarly, Roch and Shanock (2006) found that both informational and procedural justice predicted organizational support, with procedural justice being a relatively stronger predictor.

#### Support for the Model

As mentioned earlier, there is robust support for the distinction between procedural and interactional justice. In fact, two meta-analyses were recently published, both providing evidence of the conceptual distinction. Cohen-Charash and Spector (2001) included 190 samples and over 64,000 individual participants in their meta-analysis. They found the perceptions of all three justice constructs to be significantly correlated. Interactional and procedural justice were equivalently correlated in laboratory experiments, r = .57, and in field studies, r = .58. The authors concluded from these correlations that procedural and interactional justice were related, but distinct, constructs.

The authors found additional evidence for the distinction between the justice constructs in their differential relationships with outcomes. Specifically, procedural justice was more strongly related to institution-relevant outcomes, like organizational support. Distributive justice was more strongly related to evaluations of the outcome, like pay satisfaction. These findings provided some support for the structural model of the OMJ. However, the authors did not have enough data to test the specific hypotheses regarding the relative strength of the relationships between procedural and interactional

justice and their associated outcomes. Therefore, overall, the meta-analysis provided only mild support for this particular component of the organizational model.

In the second meta-analysis, which Colquitt and colleagues (Colquitt, Conlon, Wesson, Porter, and Ng, 2001) published the same year that Colquitt published his refinement of the OMJ, the authors tested some of the relationships in that theory. Unlike Cohen-Charash and Spector (2001), Colquitt et al. (2001) analyzed the distinction between the four justice constructs proposed in the organizational model—procedural, distributive, interpersonal, and information. Colquitt et al. (2001) first studied the correlations among the justice constructs. The authors found support for the notion that there are four distinct types of justice. Specifically, although all four justice judgments were significantly correlated, the correlations were not so high as to conclude that they are tapping the same construct. The correlations ranged from r = .38 for the relationship between distributive and informational justice and r = .66 for interpersonal and informational justice. Note that this latter correlation is quite high. The authors concluded that it still supports their proposal that informational and interpersonal justice are distinct constructs. However, one could easily argue that this correlation is high enough to favor combining them into the broader construct of interactional justice, which is the more traditional organizational approach.

Colquitt and colleagues (2001) also evaluated whether justice judgments differentially predicted decision outcomes and found mixed support. Consistent with the OMJ, distributive justice more strongly related to outcome satisfaction than the other justice constructs. Also consistent with the model, procedural justice more strongly related to organizational commitment and performance at work than the other types of

justice. However, support for the model broke down with the predictions for interpersonal and informational justice. The organizational model predicts that interpersonal justice will more strongly relate to leader evaluation. The results of Colquitt et al.'s (2001) meta-analysis did not support this hypothesis. Instead, informational justice was the strongest predictor of leader evaluation when researchers measured the construct on a system, or organizational, level. When researchers measured leader evaluation on an individual level, with reference to a specific leader, then interpersonal and informational justice were more equivalently predictive. These findings, again, suggested that the distinction between interpersonal and interactional justice is not as strong as Colquitt (2001) has proposed.

Consistent with the two meta-analyses, the vast body of literature almost universally supports the distinction between procedural and interactional justice (e.g., Bernerth, Armenakis, Field, & Walker, 2007; Chory, 2007; De Cremer, van Dijke, & Bos, 2007; Flaherty & Moss, 2007; Forret & Love, 2008; Klendauer & Deller, 2009; Luo, 2007), both in terms of scale or measurement validity and predictive validity. As for the distinction between informational and interpersonal justice, the research support is sparser and more equivocal. In Colquitt's (2001) original publication of the model, he presented the results of three studies, all of which supported the distinction. In his first study, Colquitt (2001) tested and validated his measurement model using confirmatory factor analysis with two different samples, a field sample of employees and a university sample. In the second and third studies, he tested the structural model and found general support for the model's differential outcome predictions. The second study confirmed all four relationships between the justice constructs and their individual

outcomes, although it should be noted that, in addition to interpersonal justice, procedural justice also predicted leader evaluation. The third study also supported all four predicted relationships.

In addition, other researchers have investigated this more nuanced four-factor approach and found some support (e.g., Kernan & Hanges, 2002; Siers, 2007; Skarlicki, van Jaarsveld, & Walker, 2008; Wenzel, 2006; Wu, Neubert, & Yi, 2007). Moreover, many contemporary organizational justice researchers have adopted Colquitt's (2001) measure, which is evidence that the measurement model, at least, has been implicitly accepted as valid (e.g., Siers, 2007; Wu, Neubert, & Yi, 2007). Nonetheless, despite its implicit acceptance, consistent or robust empirical support for the OMJ is lacking, especially when it comes to the distinction between interpersonal and informational justice. This dissertation was among the first experimental tests of the model.

#### The Group Engagement Model

The group engagement model is described in full detail in Tyler and Blader (2003) and reproduced in Figure 1.2 (p. 35). As with the organizational model of justice (OMJ), the group engagement model (GEM) includes both a measurement and a structural component. However, compared to the organizational justice model, the GEM seeks to explain the underlying process whereby positive procedural treatment creates positive attitudes and behavioral engagement with regard to the decision-making group and the decision itself. Another key difference is that the OMJ distinguishes between different kinds of justice outcomes, while the GEM, on the other hand, makes a much simpler argument with regard to outcomes. Put simply, the GEM posits that procedural justice will improve group engagement. The GEM is a model of motivation and, as such,

its strength is in its description of the process. The OMJ is much more a descriptive model of the strength and relationships between types of justice and types of outcomes. Measurement Component

Whereas Colquitt (2001) proposes that justice judgments consist of four distinct categories, Tyler and Blader (2003) argue that there are really only two categories: procedural and distributive justice. The group engagement model defines distributive justice in the same terms that Colquitt (2001) uses, focusing on the fairness of the outcome itself. In contrast, procedural justice is defined more broadly in the GEM than in the OMJ. In fact, Tyler and Blader's (2003) measurement model of procedural justice encompasses the substance of all three of the OMJ's remaining justice constructs: procedural, interpersonal, and informational.

While similar substance is in both models, the structure and definition are quite different. Specifically, Tyler and Blader (2003) propose that procedural justice judgments are founded on four components, which are detailed in a separate publication (Blader & Tyler, 2003). According to the model, two functions are central to people's judgments about procedural justice: the quality of the decision-making and the quality of the treatment. Blader and Tyler (2003) argue that decision-making quality provides information about the outcomes of the decision making process and whether those outcomes will be fair. In evaluating decision-making quality, people rely on issues like neutrality and opportunity to participate in the process.

Arguably, decision-making quality is akin to "procedural justice" in organizational justice research, and treatment quality is akin to "interactional justice."

However, the components are defined in broader terms in the four-component model than

in the OMJ, because they take into account two different "procedural sources." Procedural source is the second function in Blader and Tyler's (2003) model. The source can be either formal or informal. Formal sources are rules and policies of the institution and reflect the prevailing group norms. Informal sources of procedural information are the particular authorities enacting the procedure, like a judge or supervisor.

Blader and Tyler (2003, 2005) acknowledge that their model recognizes the distinction between procedure and treatment so prevalent in organizational research, but they argue that their model presents a more comprehensive view of interactional justice. Specifically, organizational justice research tends to define procedural justice in formal terms (i.e., formal decision-making) and interactional justice in informal terms (i.e., informal treatment). The four-component model extends this measurement by allowing for judgments of formal treatment and informal decision-making, which are excluded in the narrow conceptualizations of justice in the OMJ.

#### Structural Component

The structural component of the GEM is more complex than that of the organizational model of justice. As with Colquitt (2001), Tyler and Blader (2003) draw a link between justice judgments, on the one hand, and attitudinal and behavioral reactions on the other. However, that is where the similarities end. Tyler and Blader (2003) argue that justice judgments, regardless of the type of justice, indirectly affect attitudes and behaviors through the mediating mechanism of identity judgments, which include pride in being a member of the organization or institution, respect from the organization or institution, and identification with the organization or institution. The authors call this argument the social identity mediation hypothesis (Tyler & Blader, 2003; Blader & Tyler,

2009). The core idea is this: People are motivated to evaluate justice because it gives them information about their group identity. To the extent that they perceive increased fairness, they develop a more positive sense of group identity, which then motivates them to engage in positive group-related behaviors.

The social identity mediation hypothesis is the gist of the structural component of the GEM. However, the GEM also describes some more nuanced relationships between the constructs of interest. Perhaps most importantly, even though both procedural and distributive justice have the power to indirectly affect behavior, Tyler and Blader (2003) argue that procedural justice is generally a more powerful motivator than distributive justice. This argument follows from the assumption that procedural treatment conveys more information about people's group identity than distributive treatment. Furthermore, the model subjugates distributive justice judgments to the role of antecedents of resource judgments, which reflect people's understanding of the amount and quality of resources the group has available to it and the amount and quality of resources the group is willing to share with that person in particular. Procedural justice and resource judgments directly influence identity judgments, while distributive justice influences identity only indirectly through resource judgments, which are, in themselves, hypothesized to be a weaker influence than is procedural justice.

Despite the relatively weaker position of distributive justice and resource judgments, Tyler and Blader (2003) make one caveat: the power of procedural treatment is not as strong when it comes to predicting mandatory group behaviors. The authors argue that mandatory behaviors, by definition, are directly connected to institutional sanctions and rewards, which are distributive, resource mechanisms. Therefore, where

mandatory behaviors, like compliance with legal orders, are concerned, resource judgments should have both the indirect effect described above and a direct effect on those behaviors.

With regard to distributive justice, one additional structural detail is worth noting. In the OMJ, distributive justice directly influences outcome favorability (i.e., decision satisfaction), and predicts it more strongly than the other three justice judgments. In contrast, in the GEM, outcome favorability operates at the same level and in conjunction with distributive justice. Both distributive justice and outcome favorability are two dimensions of people's global resource judgments.

A final structural detail deserves attention. Tyler and Blader (2003) make an additional caveat concerning mandatory behaviors. Specifically, they argue that pride, or group prestige, motivates people to act with loyalty towards the group. This translates into pride directly increasing motivation to comply with mandatory behaviors. That is, pride acts both directly and indirectly through social identity to motivate people to comply with mandatory group engagement.

#### Support for the Model

Unlike the organizational model of justice, the GEM has been the subject of very little systematic research. In introducing the four-component model, Blader and Tyler (2003) presented data from a series of studies supporting the measurement structure. However, while a few researchers acknowledge that the model exists (Horvath & Andrews, 2007; Lipponen, Koivisto, & Olkkonen, 2005), no published study tests the four-component model of procedural justice, or even adopts it as a measure. In fact, even the authors themselves have implicitly rejected the four-component model in favor of

simpler measures of procedural justice in their recent work (e.g., Blader, 2007b; Blader & Tyler, 2009; Okimoto & Tyler, 2007; Tyler & De Cremer, 2005).

It is unclear why the four-component model has not been as widely tested, yet alone accepted, as the OMJ. One explanation is that the organizational model is more parsimonious. The adage that the simplest explanation is often the right one applies to theory development, and the organizational model of justice is arguably simpler and more intuitive. Another explanation is that the measurement component of the organizational model of justice simply has too much momentum as an instrument for researchers to reject it, even if the alternative is more valid.

Compared to the measurement component, the structural component of the group engagement model certainly has a stronger empirical foundation. First, it is rooted in about 15 years of research and theory development. The model has its roots in the group value model (Lind & Tyler, 1988) and the relational model (Tyler & Lind, 1992) of procedural justice, both of which were well-supported. The group value model and the relational model were also based on the hypothesis that procedural justice is important because of what it communicates to people about their group status and identity.

Consistent with this hypothesis, many researchers adopted one of these models in their research (e.g., De Cremer, 2003; Murphy-Berman, Cross, & Fondacaro, 1999; van Prooijen, van den Bos, & Wilke, 2002), and found support for the notion that identity and status judgments have an important role in the link between procedural justice and decision outcomes.

For example, Sousa and Vala (2002) surveyed 1100 employees in a Portuguese insurance company about their perceptions of justice and support for organizational

change. The researchers explored whether identity judgments (i.e., respect and pride) mediated the relationships between procedural justice judgments and support for organizational change. They found partial support for the mediation hypothesis in that, once pride and respect were factored in, the relationship between procedural justice and organizational support was partially, but not completely, attenuated.

Tyler, Degoey, and Smith (1996) evaluated the group value model in a series of four studies in four separate contexts: college students' conflicts with their parents, university employees' conflicts with supervisors, college students' conflicts with a faculty or staff member, and people's attitudes about the United State Supreme Court. The authors found, consistent with the identity mediation hypothesis, that perceptions of pride and respect mediated the relationship between procedural justice judgments and various justice outcomes—compliance with group rules, group commitment, and voluntary group behavior. The authors did not find complete mediation in every set of analyses, but they found either partial or full mediation in the majority of analyses.

Second, outside of adopting any of the three models proposed by Tyler and colleagues, subsequent researchers have still empirically tested the relationships between procedural justice, identity, and outcomes (Amiot, Terry, & Callan, 2007; Blader, 2007a; Blader, 2007b; Fuller, Hester, Barnett, Frey, Relyea, Beu, 2006; Gleibs, Mummendey, & Noack, 2008; Hakonen & Lipponen, 2008; Mayer, Greenbaum, Kuenzi, & Shteynberg, 2009). Although not all studies directly test the mediation hypothesis, generally, the data support the model. For example, Blader (2007a) conducted two experimental studies in which he tested the relationships between identification, procedural justice judgments, and outcomes. In the first study, procedural justice and identification were manipulated,

while identification and outcome were manipulated in the second study. Taken together, the results of the studies supported the relationships between identification, procedural justice, and outcomes predicted by the group engagement model. More specifically, Blader (2007a) found strong positive relationships between all three constructs: both positive identification and positive outcome favorability predicted increased perceptions of procedural justice. The author did not test the social identity mediation component of the GEM.

Amiot, Terry, and Callan (2007) did test the identity mediation hypothesis in the context of employee adjustment to organizational merger. In a longitudinal study, the authors measured employee adjustment and support three months and two years after the merger. The authors found that identification with the new merged organization fully mediated the relationship between procedural justice judgments and changes in both job satisfaction and perceived stress associated with the merger over time. In other words, procedural justice judgments were associated with increased job satisfaction and decreased employee stress between Time 1 and Time 2 and these associations were fully mediated by identification.

To conclude, there is considerable research support for some of the core relationships proposed in the structural component of the GEM. However, there is virtually no research even examining the full model, let alone providing empirical support. This dissertation was among the first to test the group engagement model in full.

#### Child Protection Proceedings as a Context

A procedural justice framework might be particularly helpful in studying child protection cases for two primary reasons. First, the psychological concept of procedural justice maps neatly onto the legal concept of due process, which is the constitutional

requirement that legal proceedings be conducted in a manner that promotes fair decision-making. Second, procedural justice theory has the potential to offer some insight into parental compliance with court orders and case plans. Specifically, a procedural justice framework can help to explain one influence on parental compliance and, in turn, identify ways that judges and caseworkers can act to promote compliance.

#### Procedural Justice and Due Process

Because child protection proceedings are civil rather than criminal, parents are not afforded the same procedural protections that criminal defendants have. They do, however, have certain basic rights under the federal constitution. These rights derive from the Due Process Clauses of the 5<sup>th</sup> and 14<sup>th</sup> Amendments of the U.S. Constitution, which require that no state "shall...deprive any person of life, liberty, or property, without due process of law" (14<sup>th</sup> Amendment). The U.S. Supreme Court has held that parents have an inherent liberty interest in the care and custody of their children (*Meyer v. Nebraska*, 1923; *Pierce v. Society of Sisters*, 1925). In *Troxel v. Granville* (2000), the Supreme Court stated that "the interest of parents in the care, custody, and control of their children is perhaps the oldest of the fundamental liberty interests" (p. 65). The existence of this constitutional protection means that the government has limited rights to intervene into matters related to child-rearing. With regard to child custody, parents cannot have their rights to the care and custody of their children terminated without being proven unfit or proven to have abandoned their children (*Stanley v. Illinois*, 1972).

In the abstract, then, the U.S. Constitution provides strong protections for parental rights. In practice, this constitutional protection has formed the foundation for the extension of a host of procedural safeguards to parents in child protection cases.

Specifically, parents generally have a constitutional right to notice of any petition filed

and a right to a hearing on the merits of the petition, including the right to cross-examine witnesses and present evidence (Jones, 2006). Parents also have the right to testify on their own behalf.

Federal legislation has also provided some rights to parents related to due process. For example, Title IV-E of the Social Security Act, which was modified with the passage of the Adoption and Safe Families Act of 1997 (ASFA, 1997), gives parents the right to contribute to the development of their case plan (Badeau, Gesiriech, Haralambie, Donnelly, & Duquette, 2005). The same section of the Social Security Act gives parents the right to an expedited hearing when the state places their children into temporary custody via an ex parte order, meaning that there was no hearing on the merits prior to removal (Baduea et al., 2005).

Beyond these basic rights derived from the federal constitution, most states have expanded parents' due process rights through either state constitutions or state law. For example, the federal constitution does not provide parents in child protection hearings an absolute right to counsel (*Lassiter v. Dept. of Social Services*, 1981). Nevertheless, most states do provide parents the right to an attorney in child protection proceedings (Donnelly & Haralambie, 2005). In fact, most states offer protections far beyond the minimum requirements of the Due Process Clause (Jones, 2006). Appellate court interpretations of state constitutions, as well as state legislative code, have extended these rights.

For example, in Nebraska, parents have a right to counsel starting at the adjudication hearing (Constantakos, 2006), although many districts provide attorneys even at the initial appearance. Also in Nebraska, judges must inform parents of their

rights at their initial appearance (*In re Interest of R.W.*, 1990; Neb. Rev. Stat. § 43-279.01, 2008). In addition to the right to an attorney, Nebraskan parents have the right to prompt notice of temporary custody and a prompt detention hearing. They also have the right to an explanation of the nature of the proceeding and the potential dispositions and consequences of those dispositions. Furthermore, the state guarantees the right to confront witnesses, the right to testify and compel their own witnesses, the right to a speedy adjudication, and the right to appeal and obtain a record of the proceedings for the purposes of the appeal (Neb Rev Stat § 43-279.01, 2008). While some of these rights are also provided under federal law, they are all codified in the state juvenile code. In addition, inherent in the requirement that state officers must explain these rights to parents is the corollary that parents must understand these rights (*In re Interest of R.W.*, 1990). Generally, judges ask parents if they understand what they have been told and seek to clarify any misunderstandings as they arise (Constantakos, 2006).

Due process is a cornerstone of involvement in the legal system because it is necessary for a fair and impartial hearing. In this way, due process protections are "procedural safeguards," because they protect parties from potential impropriety or inequity in the legal system. When one thinks of due process in these terms, it is clear why a procedural justice framework is so important. As discussed earlier, "procedural justice" refers to judgments about the fairness of a particular legal decision-making procedure, a child protection hearing in this case. When due process is present, we can assume that participants will perceive greater procedural justice (Koh, 2004).

In the legal context, there has been little research exploring the relationship between due process protections alone and perceptions of procedural fairness. This lack of research partially results from the fact that the measurement of procedural justice used in the legal context is often broad, combining both formal procedural protections and interpersonal treatment. Most procedural justice researchers in the legal context rely heavily on the seminal work of Tyler (Tyler; 1994; Tyler, Degoey, & Smith, 1996; Tyler & Lind, 1992), who has always defined procedural justice broadly and, at least until recently (Blader & Tyler, 2003), emphasized the relative import of relational treatment over formal procedural safeguards as influences on overall procedural justice judgments.

Despite the lack of research on this specific issue, the body of procedural justice theory and research has clear implications for understanding the significance of due process protections. Procedural justice research has established that opportunity for active participation in the legal process (i.e., "voice") can be a strong predictor of judgments of the fairness of the procedure (e.g., Bies & Shapiro, 1988; De Cremer & Stouten, 2005; Price, Lavelle, Henley, Cocchiara, & Buchanan, 2006; van Prooijen, Karremans, & van Beest, 2006). "Voice" in child protection law results from various due process protections, including the right to have an attorney advocate and the right to testify on one's behalf. In this dissertation, I directly manipulated voice to investigate whether opportunity to provide one's story, alone, influenced procedural justice judgments in the child protection context.<sup>2</sup>

The organizational model of justice (OMJ) might be particularly useful in the legal context. In contrast to the broad definition used in the legal psychology context, the

<sup>&</sup>lt;sup>2</sup> It is worth noting that federal law provides an additional mechanism for voice in establishing the right for parents to participate in their case plan development (ASFA, 2007). I did not investigate this particular provision in this dissertation, but one can argue that it should have a similar influence on parents' procedural justice judgments to opportunity to testify.

organizational model of justice clearly distinguishes between formal procedures and interpersonal treatment. As described earlier, organizational justice researchers reserve the term "procedural justice" for evaluation of the process itself. Procedural justice derives from institutional rules and policies, whereas interpersonal justice derives from the individuals who enact those rules (Ambrose & Schminke, 2003; Colquitt, 2001; Roch & Shanock, 2006). Procedural justice, then, is akin to an evaluation of "due process," as defined by the law.

Further, the OMJ predicts that procedural and interpersonal justice will have differential effects. Specifically, procedural justice likely influences institutionally relevant attitudes and behaviors, like organizational support and organization citizenship behaviors. Interactional justice likely influences authority-relevant outcomes, like supervisor satisfaction. Because the organizational model of justice makes room for the important legal distinction between due process protections and informal, interpersonal treatment, it has the potential to be useful for understanding the role of procedural justice in the legal context.

#### Procedural Justice and Parental Compliance

At its most basic, procedural justice theory predicts that when people feel that they are being treated fairly during a legal decision-making process, then they will be motivated to comply with whatever legal decisions or orders are made. In fact, Tyler and Blader (2003) described their group engagement model as one that identifies underlying motivations to engage in both discretionary and mandatory group behaviors.

Understanding, indeed facilitating, motivation to comply with legal demands is nowhere more crucial than in the context of the child protection system. For parents involved in the child welfare system, their compliance with caseworkers, treatment providers, and the

courts appears to be a consistent predictor of decision-making in their case. Research suggests that perceptions of parental compliance influence decisions to remove the child from the home (Dalgleish & Drew, 1989; DeRoma, Kessler, McDaniel, & Soto, 2006; Jones, 1993), decisions to reunite the family (Jellinek, Murphy, Poitrast, Quinn, Bishop, & Goshko, 1992; Larrieu, Heller, Smyke, & Zeanah, 2008), and decisions to recommend termination of parental rights (Brank, Williams, Weisz, & Ray, 2001).

Jones (1993) conducted a review of the literature on caseworker decision-making through the 1980s and early 1990s, and observed that several studies identified parental cooperation as one indicator caseworkers relied on in deciding whether to remove the child from the home. Among the studies cited in Jones's review was one conducted by Dalgleish and Drew (1989), in which they coded 152 case-planning team files and used that information to predict the court's ultimate decision to issue a removal order. The researchers coded family cooperation as low, medium, or high, and found that lack of cooperation predicted whether the judge issued a removal order. In addition, the researchers had neutral caseworkers code the case files and make decisions about the risk to the children by remaining in the home. Lack of family cooperation predicted the caseworker-coders' perceptions of risk to the child.

Unfortunately, there is very little subsequent research examining the relationship between family cooperation and the removal decision. However, one recent study is on point. DeRoma, Kessler, McDaniel, and Soto (2006) asked 51 caseworkers in a single state to rate the importance of a list of indicators of child wellbeing and risk factors for child harm for making removal decisions. Parental motivation to comply, phrased by the researchers, as the "ability to accept help/cooperate with helping agencies (DSS)," was

included in the list. This item was given the second highest level of endorsement as an important risk factor in the removal decision, with 27.5% of caseworkers listing it in the top three most important factors to consider in making the removal decision. Moreover, motivation or ability to comply was ranked as the sixth most important consideration overall.

A small amount of research also demonstrates that perceptions of parental compliance predict the judicial decision to reunite the family. Jellinek and colleagues (1992) followed the course of 206 children who entered the Massachusetts child welfare system in 1985 and 1986. They measured parental compliance with court orders, and observed that 93% of the cases in which parents did not comply ultimately resulted in continued loss of custody (or failure to reunify the family) at the disposition stage. In a more recent study, Larrieu, Heller, Smyke, and Zeanah (2008) explored compliance with an intervention program to which the court referred mothers after the child protection agency removed their children from the home. As with the Jellinek et al. (1992) study, 90% of mothers who dropped out of the intervention program lost custody of their children.

Together, research, theory, and commonsense all suggest that a case will not progress smoothly through the child welfare system without the parents actively engaging in the treatment recommendations of their caseworker and the court. Given that fact, identifying mechanisms for promoting parental compliance would be of value to all the players in the child protection system—caseworkers, judges, and parents. Procedural justice theory predicts that the quality of the procedural and interpersonal treatment, as

perceived by the parents, will influence the parents' willingness and motivation to comply with their own case plans.

To date, we know relatively little about predictors of parental compliance, but some research does support applying a procedural justice framework to the topic. Specifically, a number of studies have identified factors related to informational treatment as important to parental compliance. For example, Kapp and Propp (2002) conducted focus groups with parents who had been in the child protection system. A majority of these parents complained that caseworkers provided them too little information and that parents had difficulty making contact with them. Similarly, Drake (1994) interviewed parents and caseworkers, and found that both groups identified communication with parents as important.

There is also evidence that interpersonal treatment is relevant to parents' reactions. Studies by Drake (1994), Kapp and Propp (2002), and Thoburn, Lewis, & Shemmings (1995) all identified respectful treatment as important to parents. Parents in the Kapp and Propp (2002) study indicated that they frequently felt disrespected by caseworkers. Parents and caseworkers in the Drake (1994) study emphasized that worker attitude was important. Specifically, parents said that a good caseworker should not prejudge parents and should express an open attitude. Interestingly, caseworkers more clearly articulated the themes of interactional justice than did parents. Caseworkers suggested that skilled caseworkers should be able to show respect to the clients, be polite, ask permission when looking around in their homes, be honest, and be aware that the system can be dehumanizing. It is unclear whether this means that caseworkers are merely more articulate about what makes a good caseworker-client relationship, possibly

due to training, or whether these matters are actually less important to clients than caseworkers believe they are.

Interestingly, there is weaker evidence that due process is relevant to parents. Some studies have identified "voice," or the opportunity to participate in the process, as important to parents, and voice is typically associated with procedural rather than interactional justice. Parents in the Drake (1994) study believed that they had a clear right to participate in case plan development, although caseworkers in that study did not identify client participation as an important goal. Similarly, many parents in the Kapp and Propp (2002) study complained that they felt left out of the decision-making process.

Thoburn, Lewis, and Shemmings (1995) also found that parents are left out of the case planning process. They found that only 19% of over 300 families were "active participants," although it is unclear whether the lack of active involvement was due to caseworker or client barriers. There is some evidence that some caseworkers do not actively involve parents in the process. Dumbrill (2006) interviewed parents and identified two kinds of caseworkers: those who use power over parents and those who use power with parents. Caseworkers who used power with parents were more collaborative, while those who used power over parents tended to be more aggressive and threatening.

It seems, then, that procedural and interactional justices are relevant to parents' attitudes about the child protection system and caseworkers. However, it is unclear whether justice judgments predict behavioral outcomes, like parental compliance.

Furthermore, all of this research neglects the influence that the court process itself has on parents' behavioral outcomes. Judges and lawyers also interact with parents, and judges are the ones who order parents to engage in certain behaviors. Furthermore, these studies

neglect to account for perceptions of distributive fairness. One can assume that many parents believe that removal of their children from the home is unfair, but we do not know that for sure. Without taking these factors into account, we have a poor understanding of how parental compliance is manifested in the child protection system.

To summarize, research on parental compliance lacks a systematic exploration of the underlying mechanisms that promote or hinder it. Research on parental motivation to comply in child protection cases, and subsequently, our understanding of it, could benefit greatly from a theoretical foundation. One potential influence on parental compliance might lie in parents' perceptions of justice. It may be that motivation to comply follows directly from perceptions of fairness and justice, which follows from parents' own perceptions of their treatment during the legal process. An additional purpose of this dissertation was to explore whether procedural justice theory can account for observers' evaluations of child protection hearings and outcomes. More specifically, the major question is which model, if either, is best suited for explaining the way in which people evaluate decision-making procedures and outcomes, including compliance with legal decisions.

#### Study Purpose and Hypotheses

#### Overview of Research Design

This dissertation systematically tested the complex theoretical relationships between justice judgments and decision outcomes in the context of a child protection case. The general purpose of this study was to compare two theoretical models of justice: the organizational model of justice (OMJ) and the group engagement model (GEM). Participants read a case file, which included the petition for removal, the caseworker's

court report, a summary of what happened during the protective custody hearing, and a copy of the judge's protective custody hearing order. The case involved allegations of child neglect, as a result of which, the mother had recently lost temporary custody of her child. At the end of the hearing, the judge refused to return the child back to her mother's physical custody until the case proceeded at least through adjudication.

The study utilized an experimental between-subjects design with four manipulated independent variables: procedural treatment, interactional treatment, severity of neglect, and decision-making role (i.e., decision-maker versus decision-recipient). The first two manipulated variables—procedural and interactional treatment—represented the core constructs known to affect justice judgments. For this study, interactional treatment was a single manipulated construct, with interpersonal and informational components manipulated simultaneously. However, I still separately measured interpersonal and informational justice judgments. In this way, the study provided an initial test of whether these two constructs are independent.<sup>3</sup> In fact, as is described in the results section, the two measures did hold up as independent constructs. Many of the analysis reported in the results section used the interpersonal and informational justice measures instead of the combined interactional justice measure.

The third manipulation—severity of neglect—was intended to serve as a proxy for manipulating distributive justice. If the mother's neglectful conduct toward her daughter was perceived as less severe, then participants would think that the judge's decision to keep the child in the physical custody of Health and Human Services was less

<sup>&</sup>lt;sup>3</sup> Only an experimental manipulation of the constructs would definitively answer that question, but the results of this study can lend support to Colquitt's (2001) refinement of interactional justice.

fair. Some researchers argue that distributive justice judgments are a strong moderator of the relationships between procedural and interactional justice and their outcomes (Brockner & Wiesenfeld, 1996; Cropanzano, Slaughter, & Bachiochi, 2005; Skarlicki, Folger, & Tesluk, 1999).

The fourth manipulation—decision-making role—was also included to test a moderation effect. Specifically, Heuer, Penrod, and Kattan (2007) found that decision-makers, as compared to decision-recipients, are more outcome-focused when evaluating procedural justice, interactional justice, and decision satisfaction. They also found that decision-makers are more likely to base their judgments on their beliefs about the societal costs and benefits of the procedures at issue, than by the traditional criteria of procedural justice.

The remainder of this chapter lists the specific research questions that I asked in framing this study. A brief description of the basis for the question, as well as the hypotheses derived from it, is also included. The research questions and hypotheses provide the framework for the results and discussion.

Research Question (RQ) 1: Which measurement model best accounts for participants' justice judgments?

In the course of more than 30 years of procedural justice research, a number of models have described the antecedents of justice. In this study, I compared three of these measurement models. The first model, labeled the "traditional model," posits that people evaluate two types of justice: procedural and distributive. This model is present throughout the psycholegal justice literature (e.g., Heuer, Penrod, Hafer, & Cohn, 2002; Heuer, Penrod, & Kattan, 2007; Tyler, 2006; Tyler & Blader, 2003). The second and

third models follow from the organizational justice literature. The first of those is a three-factor model, which argues that the traditional construct of "procedural justice" consists of two distinct constructs: procedural justice and interactional justice (Bies, 2001; Bies & Moag, 1986). The third model, part of the organizational model of justice (OMJ) proposed by Colquitt (2001), argues for an additional distinction. Specifically, the author separates interactional justice into interpersonal and informational justice.

Table 1.1 illustrates these three measurement models in terms of the items used to define each of the constructs and which justice construct each item loaded onto in each of the models. The major difference between the traditional model and the organizational models is that the traditional model posits that procedural justice is a single superordinate construct, which contains procedural, interactional, and interpersonal components to differing degrees depending on the researcher. The organizational models, on the other hand, constrain the label "procedural justice" just to evaluations of the procedure itself and places interpersonal and informational concerns on equal, orthogonal footing with formal procedure.

Research Hypothesis (RH) 1: In a confirmatory factor analysis, the four-factor organizational justice measurement model will perform significantly better than both the traditional and three-factor organizational justice models.

Table 1.1: Item Loadings for Three Theoretical Measurement Models of Justice

	Traditional Model	OMJ 1	OMJ 2
Item	2-Factor Model	3-Factor Model	4-Factor Model
Was the mother able to	Procedural Justice	Procedural Justice	Procedural
express her views and			Justice
feelings during the			
hearing procedure?			
Did the mother have	Procedural Justice	Procedural Justice	Procedural
influence over the			Justice
decision being made			
during the hearing			
procedure?			

Was the hearing procedure free of bias?	Procedural Justice	Procedural Justice	Procedural Justice
Was the hearing procedure based on accurate information?	Procedural Justice	Procedural Justice	Procedural Justice
Did the hearing procedure uphold ethical and moral standards?	Procedural Justice	Procedural Justice	Procedural Justice
Did the judge treat the mother in a polite manner?	Procedural Justice	Interactional Justice	Interpersonal Justice
Did the judge treat the mother with dignity?	Procedural Justice	Interactional Justice	Interpersonal Justice
Did the judge treat the mother with respect?	Procedural Justice	Interactional Justice	Interpersonal Justice
Did the judge refrain from improper remarks or comments?	Procedural Justice	Interactional Justice	Interpersonal Justice
Was the judge candid in his communications with the mother?	Procedural Justice	Interactional Justice	Informational Justice
Did the judge explain his decision thoroughly?	Procedural Justice	Interactional Justice	Informational Justice
Did the judge explain the procedures thoroughly?	Procedural Justice	Interactional Justice	Informational Justice
Were the judge's explanations about the hearing procedures and decision reasonable?	Procedural Justice	Interactional Justice	Informational Justice
Did the judge's decision reflect what the mother deserved?	Distributive Justice	Distributive Justice	Distributive Justice
Was the judge's decision appropriate given the situation?	Distributive Justice	Distributive Justice	Distributive Justice
Was the decision justified given the mother's performance?	Distributive Justice	Distributive Justice	Distributive Justice

RQ 2: Do justice judgments differentially predict justice outcomes?

This research question followed from the organizational model of justice (OMJ), which suggested that different justice judgments predict different decision outcomes.

Figure 1.1, adapted from Colquitt (2001), illustrates the hypotheses derived from this literature. Note that some of these hypotheses directly contradict hypotheses that the group engagement model (GEM) implies, which are laid out as part of *RQ 3*. Most of the contradictions are the result of structural differences. For example, the OMJ conceives of decision satisfaction as an outcome, while the GEM lumps decision satisfaction together with judgments about distributive justice. In the GEM, both distributive justice and decision satisfaction are considered indirectly predictive of other behavioral outcomes, rather than being outcomes themselves (compare Figures 1.1 and 1.2).

- RH 2: Compared to the other justice judgments, perceptions of procedural justice will better predict better legal compliance expectations. In other words, those who perceive the process itself as more procedurally fair will indicate increased expectations that the mother in the scenario will comply with the court and reunite with her daughter.
- RH 3: Compared to the other justice judgments, perceptions of interactional justice will better predict leader evaluations and collective esteem.
  - RH 3a: Those who perceive fairer interpersonal justice to be fairer will evaluate the judge more positively.
  - *RH 3b:* Those who perceive fairer informational justice will indicate greater endorsement for the mother's sense of collective esteem, or respect derived from social identity as a parent.
- RH 4: Compared to the other justice judgments, perceptions of distributive justice will better predict decision satisfaction. Those who perceive the decision as more distributively fair will indicate increased satisfaction with the decision, and this relationship will be stronger than the relationship between procedural and interactional justice and decision satisfaction.
- RQ3: How well does the group engagement model account for justice outcomes?

According to Tyler and Blader (2003, Figure 1.2), the group engagement model (GEM) is an attempt to explain the underlying mechanism that causes positive procedural treatment to increase motivation to engage in cooperative behavior. In short, the model argues that procedural justice influences behavioral engagement via identity judgments.

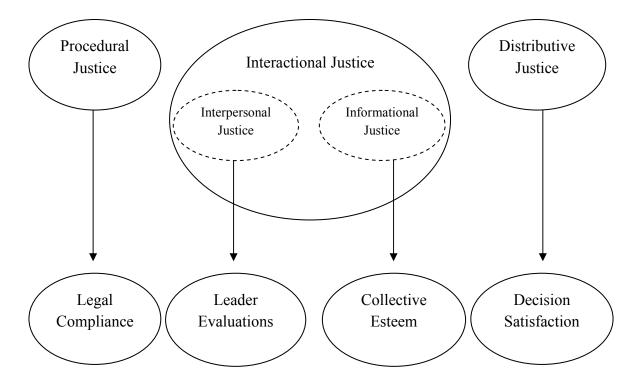


Figure 1.1. The organizational model of justice (OMJ). Predicted relationships between justice judgments and their associated outcomes according to the OMJ. The dashed ovals represent constructs that were not directly manipulated in this study. Even so, they were measured and tested in select analyses. Adapted from Colquitt (2001).

Positive procedural treatment provides information about a person's status in the group, respect for the group, and identification with the group, which in turn influences their willingness to engage in the group, including their willingness to comply with mandatory behaviors, like legal orders. This is called the "social identity mediation hypothesis."

Note that for this set of hypotheses, the term "procedural justice" referred to procedural and interactional justice, combined, as is typical in the psycholegal justice literature.

RH 5: The group engagement model will adequately represent the data. More specifically, procedural justice judgments will predict identity judgments, which will predict participants' predictions that the mother in the scenario will comply with the law. In addition, perceptions of distributive justice and outcome favorability, which is operationalized as decision satisfaction in this study, will jointly predict identity judgments. Both procedural justice and resource judgments will exert indirect effects on perceived likelihood of compliance.

In addition to the relationships illustrated in Figure 2, the group engagement model specifies direct relationships where mandatory behavior is concerned:

RH 6: Perceptions of the mother's pride as a parent will directly predict perceptions of her likelihood of legal compliance. This hypothesis follows from the authors' distinction between pride and respect. Pride should reflect one's perceptions of the status of the larger group, so that when one is proud of their group, they are more inclined to comply with group demands, including obeying legal orders.

RH 7: Resource judgments—distributive justice and decision satisfaction—will directly predict perceptions of the mother's likelihood of compliance. According to Tyler and Blader (2003), mandatory behaviors are distinguishable from discretionary ones in that group-controlled resources, like incentives and sanctions motivate their enactments, and thus, resource judgments naturally have a more direct influence on these behaviors.

RQ 4: Does neglect severity moderate the relationships between procedural and interactional justice judgments and their outcomes?

The organizational justice literature provides a foundation for expecting that the severity of the mother's neglect might influence participants' justice judgments. In

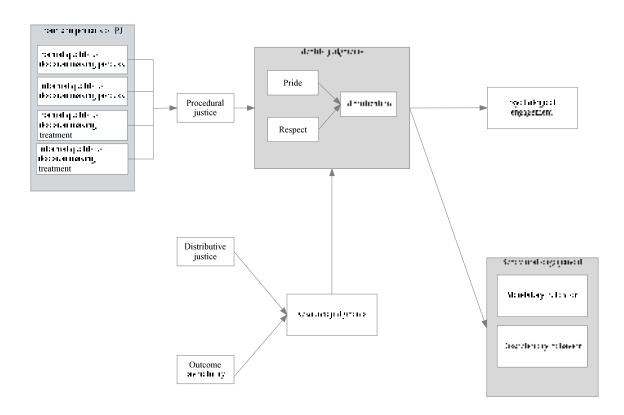


Figure 1.2. The group engagement model (GEM). Reproduced from Tyler and Blader (2003).

particular, Brockner and Wiesenfeld (1996) and Cropanzano, Slaughter, and Bachiochi (2005) found that evaluations of the decision, in terms of justice and approval, moderate the relationships between procedural and interactional justice and decision outcomes. In particular, when the perceiver considers the decision unfair and disapproves of it, then procedural justice judgments will be more strongly predictive of other decision-related outcomes. In other words, when distributive justice and decision satisfaction are low, then the relationship between procedural justice judgments and other decision outcomes, like legal compliance, will be stronger than when distributive justice and decision satisfaction are high.

RH 8: Participants will indicate lower distributive justice and decision satisfaction in the moderate neglect condition, as opposed to the severe neglect condition. In this study, manipulation of the severity of neglect is intended to serve as an indirect proxy for manipulation of distributive justice. This condition is a prerequisite for establishing the moderator effect predicted in RH 9.

RH 9: Participants in the moderate neglect condition will exhibit weaker relationships between procedural and interactional justice and their outcomes, as compared to participants in the severe neglect condition. Because neglect severity influences evaluations of distributive justice and decision satisfaction, and these constructs are known to act as moderators, neglect severity will also act as a moderator.

RH 10: Distributive justice judgments and decision satisfaction will moderate the relationships between procedural and interactional justice and their associated outcomes. Specifically, procedural and interactional justice judgments will have stronger relationships to their associated outcomes when decision satisfaction and decision satisfaction are low.

RQ 5: Does participant role—decision-maker (i.e., judge) versus decision-recipient (i.e, parent) moderate the relationships between justice judgments and outcomes?

The final research question is inspired by recent work conducted by Heuer,
Penrod, and Kattan (2007). In a series of studies, the authors demonstrated that the
traditional relationships between justice judgments and outcomes do not always manifest.

Specifically, they showed that when decision-makers, rather than decision-recipients, evaluate scenarios, their evaluations are more closely related to outcome concerns than procedural ones. They defined "outcome concerns" as concerns about the potential costs and benefits of the underlying acts or procedures, as well as perceptions of distributive justice and decision satisfaction. In this study, I operationalized the societal costs and benefits of the child protection system as concerns about infringement on parents' rights, beliefs about the magnitude of threat of child neglect, beliefs about the efficacy of the child protection system, and perceptions of the fairness of child removal generally.

RH 11: As compared to decision-recipients, decision-makers' decision satisfaction will be more strongly related to their judgments about the costs and benefits of child protection than to their procedural justice judgments. In other words, whereas decision-recipients' approval of the hearing decision in the scenario will be strongly related to their procedural justice judgments, the same will not be true for decision-makers. For those induced to take on the perspective of a juvenile court judge, their understanding of the costs and benefits of the child protection system will better predict their evaluations than will the fairness of the procedural and interpersonal treatment in this particular hearing.

RH 12: Even when evaluating procedural justice, costs and benefits will more strongly influence decision-makers than will traditional procedural justice criteria. This hypothesis is derived directly from Heuer, Penrod, and Kattan (2007), who found that decision-makers' evaluations of procedural justice are more strongly related to their perceptions of the societal costs and benefits of the underlying legal procedure than to the traditional predictors of procedural justice judgments. Translated, this hypothesis means that perceptions of the costs and benefits of child protection will more strongly predict decision-makers' procedural justice judgments than will the traditional procedural justice items, which measure evaluation of the procedural, interpersonal, and informational justice.

Note that, as is also true for the group engagement model, the definition of "procedural justice" used by Heuer, Penrod, and Kattan (2007) is less nuanced than that used in the organizational justice literature. Specifically, the authors defined procedural justice as a combination of procedural, interpersonal, and informational treatment. However, the authors also noted that future research should begin exploring the role and

strength of the moderator effect with different justice criteria. Therefore, in testing these hypotheses, I evaluated whether role had effects on either of the relationships between procedural and interactional justice and their outcomes.

Note that the existence of a role effect necessarily affects the relationships hypothesized for each of the previous proposed research questions. Given that this is a new area of research, and that most past research has evaluated decision-recipients' judgments, all of the hypotheses derived from the past literature maybe necessarily qualified by the role moderator effect identified by Heuer, Penrod, and Kattan (2007). For that reason, I also selectively explored some hypotheses separately for only those participants in the decision-recipient condition.

## Chapter 2. Method

# **Participants**

*Pilot data.* Before collecting the experimental data, I pilot tested the stimulus materials to check that the manipulations were effective. I recruited pilot participants from the Department of Psychology subject pool at the University of Nebraska-Lincoln. Pilot participants were at least 19 years old, the age of consent in Nebraska, and earned one course credit for their participation. A total of 88 students participated in the pilot study, but 11 did not fully complete the survey (N = 77). Each of the 16 conditions contained between four and six participants, and each of the main effect comparisons contained between 36 and 41 participants per group. The results of the analyses, which showed that the manipulations were successful, appear in detail in the "Results" section of this dissertation.

Experimental data. I recruited 320 participants from StudyResponse, a web-based organization operated at Syracuse University that maintains a database of volunteers for online research. Participants recruited from this subject pool were each paid \$5. Participation was limited to individuals who were at least 19 years old. In the end, 335 people entered the online survey. Of those, 12 did not actually complete any of the measures, reducing the sample size to 323 participants, with between 17 and 22 participants per condition. Within this sample, there remained intermittent missing data. To explore the extent of missing data, I calculated the frequency distribution for each item, excluding demographics. There was only a small proportion of missing data for every item—no more than 8 responses out of 323 (2.5%) per item. All analyses reported below include completed data from the 323 participants.

The final sample (N=323) averaged 47.58 years old (SD = 13.19). The sample was evenly split among genders (48.0%, n = 155, self-identified as female), but was predominantly white (90.4%, n = 292, self-identified as white). Only 24 participants identified with a racial/ethnic group other than white, rendering racial comparisons within the sample impossible. Most of the participants (n = 208, 64.4%) reported that they had children. Of those who had children, the number ranged from 1 to 13 children (M = 2.36, SD = 1.34). The average age of participants' youngest child was 19.81 years old (SD =12.85), ranging from less than a year old to 57 years old. The majority of respondents with minor children (93.4%, n = 137) indicated that they currently had physical custody. Only seven respondents indicated they did not have custody; thus, I did not explore custody itself in subsequent analyses. Finally, when asked to indicate how liberal or conservative they considered themselves, the average response was 3.97 (SD = 1.69) which was just slight above the middle of the seven-point scale, where higher numbers meant more conservative. Aside from race and custody, each of the demographic characteristics (i.e., gender, whether a parent, number of children, and political orientation) were explored in subsequent analyses.

### Design

The experiment was a 2 (procedural treatment: unfair and fair) X 2 (interactional treatment: unfair and fair) X 2 (level of neglect: moderate and severe) X 2 (decision-making role: judge or parent) between-groups factorial design. The computer program randomly assigned participants to each of the 16 conditions after they consented to participation.

#### Procedure

Both pilot and experimental participants completed the study on a computer of their choice going first to a URL address that sent them directly to the informed consent page. Pilot participants entered their name, so that they could be properly assigned course credit. Experimental participants entered their StudyResponse ID number, which allowed StudyResponse to send them payment. After consenting, participants went to a "Welcome" page, the sole purpose of which was to randomly assign participants to one of the sixteen conditions. Both the informed consent and welcome pages were hosted on the psychology department server. When participants clicked the "next" button on the welcome page, the program randomly sent them to one of the sixteen conditions, each of which had a separate URL link on the SurveyMonkey website. The data was stored on the SurveyMonkey server until the researcher downloaded it. For both samples, names or IDs were stored in a separate database and were not in any way traceable to a particular condition or set of responses.

Once assigned to a condition, participants first completed the role induction procedure, where they were encouraged to think about what it would be like to be either a decision-maker (judge) or decision-recipient (parent) in a child abuse case (Appendix A). The role induction procedure was similar to the one that Heuer, Penrod, and Kattan (2007) used. The website instructed participants that the study was about a juvenile court case, specifically a child abuse case. Participants in the judge condition read a statement about what a juvenile court judge does and then imagined that they were a juvenile court judge who frequently heard child neglect cases. They then described whether they thought it would be easy or difficult to be a juvenile court judge, what kinds of

information they would need to make good decisions in these cases, and how it would feel to be this kind of judge. Participants in the parent condition imagined being a single parent of a 10-year-old child who had just been removed from the home. They described what it would be like to be a parent in this situation, how they would feel about attending the hearing, and what they would expect to happen at the hearing.

Following the role induction procedure, participants read a "case file," described in detail below. After reading the case file, participants completed the measures: manipulation checks; a measure of Justice Perceptions, adapted from Colquitt (2001); a measure of Justice Outcomes, also adapted from Colquitt (2001); a measure of identity judgments, adapted from Tyler and Blader (2001); a measure of Societal Costs and Benefits, adapted from Heuer, Penrod, and Kattan (2007); and demographic questions. *Materials* 

The "case file" described the case of Hailey Smith, born January 4, 1999, which was loosely based on two recent cases held before the Sarpy County Juvenile Court in Nebraska. The first screen told participants that "the next several pages will walk you through the case file for the case of **Hailey Smith**. The case file contains four documents. For each document, you will first read a description of the document's purpose, then you will read the actual document." Proceeding through the study, participants then read the Official Juvenile Petition, Official Caseworker Court Report, Protective Custody Hearing Summary, and the Official Protective Custody Hearing Findings and Order. Each document was on a separate webpage. The top of the webpage described the purpose of the document, and the bottom showed the actual document.

Official Juvenile Petition. The description of the petition stated, "The county attorney files the official petition. The purpose of the petition is to describe the nature of the situation that led to removing Hailey from her mother's home and bringing the case before the court." The text of the petition was in the same format and general language as a petition in the juvenile courts of Nebraska and was largely a modification of local court records. The petition included one manipulation—severity of neglect—and was a page long. Both versions are included in Appendix B. The severity of neglect manipulation is described in detail in the "manipulations" section below.

Official Caseworker Court Report. The description of the court report stated its "purpose is for the caseworker to make recommendations to the judge about what to order for the family." The court report was similar in format to those actual reports submitted by caseworkers. However, it was shorter and more concise so that the final recommendations were more salient to participants. The report was approximately one page, and contained no manipulations, meaning that all participants saw the same report (Appendix C).

In the report, the caseworker made four recommendations to the court. First, the caseworker recommended that the child remain in the legal and physical custody of Health and Human Services. Second, she recommended that the mother participate in a parenting assessment and parenting class. Third, the caseworker recommended that the judge order the mother to "maintain a sanitary and safe home environment for Hailey." Finally, she recommended that the judge order the mother to "ensure that Hailey is properly supervised at all times."

Protective Custody Hearing Summary. The description of the summary stated, "The protective custody hearing is the first hearing before the court after the child welfare agency or the police have removed the child from the home. The primary purpose of the hearing is for the judge to decide whether the removal was legally appropriate, and whether the agency can safely return the child home while the case goes through the court process." This language is similar to that written in the Resource Guidelines published by the National Council for Juvenile and Family Court Judges (1995).

The text of the hearing summary was a combination of dialogue and description of what occurred at the actual hearing. Using descriptive text and dialogue allowed for the most effective manipulation of the procedural and interactional treatment variables (described later). In addition, the severity of neglect manipulation appeared again within the hearing summary. The result was eight different versions of the hearing summary (Appendix D). At the end, the hearing summary described the judge's final decision, which was to keep the child outside of her mother's home pending adjudication. The exact language of the decision varied as part of the interactional justice manipulation. Each summary was about one and a half pages long.

Official Protective Custody Hearing Findings and Order. The Case File described this document as "the judge's official order at the end of the protective custody hearing. It formalizes the decision the judge made during the hearing, including whether the child should remain out of her mother's home or return home pending the next hearing." The text and format of the order appeared as realistic as possible. Much of the language came from form-language used in local court practice. The order did not contain any of the manipulations, but it did reiterate the judge's final decision to keep Hailey from returning

to her mother's home pending adjudication by stating, "... continued placement in the residence is contrary to the child's welfare because the house was found in a dirty condition and the child was found alone without adult supervision." As will be illustrated below, this language was vague enough that it described both neglect conditions. The order was less than one page long (Appendix E).

## *Manipulations*

Procedural treatment. The eight versions of the Protective Custody Hearing Summary provided the procedural treatment manipulation (Appendix D). While procedural treatment manipulations vary extensively across studies, most definitions include "voice," or the opportunity to speak one's side, as a key component (Bies & Shapiro, 1988; Thibaut & Walker, 1975; Tyler, 2006; Colquitt, 2001). In addition, experimental manipulations of procedural treatment usually involve a manipulation of voice (e.g., Holbrook, 1999; Williams, 1999). For this reason, I manipulated procedural justice in this study by varying the mother's opportunity to personally present information to the court during the hearing.

In both conditions, the mother's attorney asked the court for permission for the mother to make a statement. This is the relevant excerpt from the Summary:

The judge then asked Ms. Smith's attorney if she had anything to say on behalf of her client. The attorney said, "Yes, your honor. I have a request on behalf of my client. Your honor, Ms. Smith is a single parent of a tenyear-old girl who is doing the best she can with limited resources. If it pleases the court, Ms. Smith would like the opportunity to explain the situation from her own perspective."

In the unfair condition, the judge refused that request:

The judge answered the attorney, "As you know, the law prevents me from allowing Ms. Smith to speak in my courtroom at this stage of the case. The purpose of the protective custody hearing is merely to decide on

the child's placement, and parents are not allowed to provide information at this hearing. Ms. Smith cannot speak to the court in the manner you requested. I cannot hear her testimony now."

In the fair condition, the judge granted that request:

The judge answered the attorney, "As you know, the law requires that I allow Ms. Smith to speak in my courtroom at this stage of the case. The purpose of the protective custody hearing is to decide on the child's placement, and parents are allowed to provide information at this hearing. Ms. Smith has a right to provide her own perspective, so that I may consider it in deciding Hailey's placement. I can hear her testimony now."

The mother then described her side of the story to the judge.

The emphasis on jurisdictional practice served the purpose of emphasizing that this was a formal, legal requirement, rather than a personal decision made by the judge. Similarly, having the dialogue occur between the judge and the attorney, rather than between the judge and the mother, served to isolate the effects of procedural treatment and avoid confounds with interactional justice, which would result if the communication were interpersonal.

Interactional Treatment. Like the procedural treatment manipulation, the interactional treatment manipulation was contained within the eight versions of the Protective Custody Hearing Summary (Appendix D). However, components of the interactional treatment manipulation appeared throughout the description, rather than being limited to one paragraph. This is because the interactions between the judge and the parent in a real case are likely to occur at multiple points in the hearing.

Researchers have identified interpersonal and informational treatment as important dimensions of interactional justice (Bies, 2005; Colquit, 2001). The fair and unfair conditions reflected both of these dimensions. Specifically, personal attention varied according to the judge's behavior toward the mother during the hearing. In the

unfair condition, the text describes the judge as "irritated," "disapproving," "rude," "hostile," and "irate." When reviewing the allegations, the judge made numerous negative comments. For example, at one point, the judge referred to the allegations in the petition as "disgusting," and later, the judge told the mother that he was "absolutely appalled." In contrast, in the fair condition, the text described the judge as "smiling," "interested," and "gentle."

Variations in the provision of information and justifications added to the interactional factor manipulation. In the unfair condition, the judge did not make an extra effort to explain the nature of the hearing or the decision to keep Hailey in the physical custody of the Department of Health and Human Services. In the fair condition, however, the judge did make an extra effort. At the beginning of the hearing, the judge spoke directly to the mother and said:

Ms. Smith, this is called the protective custody hearing. I want to explain to you why you are here. As you know, Hailey was living with you up until a few days ago, when the caseworker took her out of your custody. The purpose of today's hearing is for me to hear about why Hailey was removed and for me to decide if Hailey should remain out of your home for now or if she is safe to be returned to your care while the case continues. Do you understand? "Good," said the judge smiling.

At the end of the hearing, the judge explained his decision directly to the mother:

Ms. Smith, this means that I have ordered that Hailey live outside of your home for the time being. I have made this decision based on what I believe to be in Hailey's best interests. Based on what I have read in this petition, I believe that you have not taken appropriate care of Hailey, and that she is not safe in your home. Ms. Smith, do you have any questions about what has happened here today?

Note that this manipulation varied demeanor and justification jointly because others have found these factors to be central components of perceptions of interactional justice (Bies

& Moag, 1986; Bies, 2005; Colquitt, 2001). Nonetheless, I measured both informational justice and interpersonal justice judgments.

Severity of neglect. The severity of neglect manipulation was contained in both the Petition (Appendix B) and the Hearing Summary (Appendix C). The Petition laid out the allegations. In both versions, there were three separate allegations and both cases involved dirty living conditions and lack of supervision. However, the living conditions were worse in the more severe condition. More specifically, in the severe condition: (1) a toilet was found broken, filled with feces and urine, and feces was found on the floor; (2) the house was filled with clothes, food containers, debris, and a strong smell of urine; and (3) piles of rat feces were scattered throughout the home. In the moderate condition: (1) the minor was found sitting home watching television with no adult around; (2) the child explained that her mother worked until five and that she was always home alone from 4pm until her mother returned from work; (3) the kitchen sink, table, and counters were full of dirty dishes and pans and there was no clean food preparation area in the kitchen.

In summary, the house was dirty and the child was found home alone in both conditions. The fact that child was regularly unattended for a couple hours each weekday is central to the petition in the moderate condition, but lack of supervision was not central to the severe condition. Instead, the dirty home was central to the petition in the severe condition, while the dirtiness was not central to the petition in the moderate condition. This manipulation was repeated in the Hearing Summaries (Appendix D) when the judge went through each of the three allegations one by one. Repeating the allegations also provided a framework for part of the interactional treatment manipulation, where the judge reacted harshly in the unfair condition.

#### Measures

Appendix F contains the text of all measures. Note that pilot participants only answered the manipulation checks and global justice judgment measures.

Manipulation checks. To check the success of the role induction manipulation, I asked one multiple choice question: "Before you read the case, I asked you to evaluate it from one of the following perspectives. Please select the perspective you were assigned: County Attorney, Parent's Attorney, Judge, or Parent." To check the success of the severity of neglect manipulation, I asked participants four questions. The first three were answered on 7-point scales: 1) This was a serious case of neglect (scale: 1 (not at all serious) to 7 (very serious)); 2) Hailey was living in a harmful environment with her mother (scale: 1 (not at all harmful) to 7 (very harmful)); 3) Hailey was living in a dirty home (scale: 1 (not at all dirty) to 7 (very dirty)). The fourth was a true/false question written to verify that participants understood that Hailey was unsupervised in both conditions.

Two items served as checks for each of the procedural and interactional treatment manipulations. The items checking the procedural treatment manipulation were the following two true/false questions: 1) The mother was given an opportunity to present her story at the hearing; 2) The judge had no choice about whether to let the mother present her story at the hearing. Note that the answer to the second question was true in all conditions, but understanding the lack of judicial discretion was central to true procedural treatment manipulation. Participants answered the two manipulation checks for the interactional treatment manipulations on 7-point scales: 1) The judge expressed disapproval of the mother (scale: 1 (no disapproval at all) to 7 (a lot of disapproval)); 2)

The judge explained his decision to the mother (scale: 1 (no explanation at all) to 7 (a lot of explanation)).

While the decision or outcome of the hearing remained constant in this study, it was important that participants understood what that outcome was. Therefore, participants answered one true/false question to measure outcome understanding: The judge returned Hailey to her mother's home at the end of the hearing.

Justice perceptions. The items that measured perceptions of procedural, interactional, and distributive justice were from Colquitt's (2001) Organizational Justice Measure (Colquitt, 2001). The items were as true as possible to their origin, but adapted where necessary to better fit the context. Consistent with Colquitt's (2001) measure, all items were written in question format beginning with "To what extent...." However, I chose to lengthen the scale from 5 to 7 points, from 1 (to a small extent) to 7 (to a large extent). Five items measured procedural justice criteria (e.g., To what extent was the mother able to express her views and feelings during the hearing procedure?). Eight items measured interactional justice criteria, four of which measured interpersonal justice criteria (e.g., To what extent did the judge treat the mother in a polite manner?) and four measured informational justice criteria (e.g., To what extent did the judge explain his decision thoroughly?). Three additional items measured distributive justice criteria (e.g., To what extent did the judge's decision reflect what the mother deserved?).

In addition to measuring the criteria of justice judgments, I also added three global justice items. The items measured participants overall sense of procedural, interactional, and distributive justice along the same 7-point scale. All justice perception

items appear in Appendix F, with items intended to measure global justice judgments so noted.

Justice outcomes. Justice outcomes were also adapted from Colquitt (2001). I measured four outcomes: decision satisfaction, leader evaluation, rule compliance, and collective esteem. Consistent with Colquitt (2001), the scale for all items were 7-point scales from 1 (disagree completely) to 7 (agree completely). Four items measured decision satisfaction (e.g., The judge's decision was acceptable.). Four items measured leader evaluation (e.g., The judge was a good judge.). Four items measured legal compliance (e.g., The mother will try to follow the rules of her case plan.). Finally, three items measured collective esteem, defined in terms of a general sense of respect (Colquitt, 2001; e.g., If most people knew the mother well, they would respect her values.).

Identity judgments. In order to test the group engagement model (Tyler & Blader, 2003), I measured identity judgments—pride, respect, and identification. The same items that measured collective esteem (see above) also measured respect. This is because Colquitt (2001) operationalized collective esteem by drawing on Tyler's earlier work (Tyler, Degoey, & Smith, 1996), which also formed the foundation for Tyler and Blader's (2003) later group engagement model. Three items measured pride (e.g., The mother is proud to think of herself as a parent.) and four items measured identification (e.g., Being a parent says a lot about who the mother is as a person.). Since identity judgments overlapped with the collective esteem judgments, they were measured on the same scale, namely, a 7-point scale from 1 (disagree completely) to 7 (agree completely).

Societal costs and benefits. Heuer, Penrod, and Kattan (2007) argued that perceptions of societal costs and benefits of procedural violations drive the "decision role moderator effect," that is, the differential evaluations of decision-makers and decision-recipients. Because societal costs and benefits depend entirely on the procedural context, it was impossible to adopt the researchers' measures for this study. I wrote items to mirror the core idea of a cost-benefit analysis, directed toward evaluation of the costs and benefits of child protection and child removal, both in general and with reference to this case. These items were also measured on a 7-point scale, from 1 (disagree completely) to 7 (agree completely).

Four items measured respect for parents' rights (e.g., In general, removal of children from their homes is an infringement on parents' rights.). Six items measured magnitude of the threat of child neglect (e.g., Child neglect is a big problem in our society). Five items measured attitudes about the efficacy of child protective services interventions (e.g., When child protective services intervenes, the risk of child neglect is effectively reduced.). Finally, four items measured general attitudes about the fairness of child removal (e.g., In this case, the way that the child was removed from her home was fair.). This latter set of items is the most tenuously related to the original ideas proposed by Heuer, Penrod, and Kattan (2007). However, participants' evaluations of the fairness of the removal itself could potentially moderate the reactions to the hearing. In order to tease out those relationships, it was important to include these items.

*Demographics*. Participants were asked a brief set of demographic questions: age, gender, race/ethnicity, and liberal/conservative orientation. In addition, participants were asked to indicate whether they had children, how many, the ages of each child, and

whether they currently had physical custody of all minor children. If they did not have physical custody of all minor children, participants were asked how long they had not had custody, who had custody, and why they did not have custody.

# Chapter 3. Results

Pilot Testing: Manipulation Checks

Manipulations were verified with a combination of "percent correct" calculations, chi-square tests, and analyses of variance (ANOVAs), depending on the item being analyzed. For each item, the effect was measured by collapsing the sixteen conditions into two groups representing the two levels of the manipulation being verified. In other words, I tested only main effects, no interactions. Significant differences between groups were tested with chi-square analyses for the True/False items and ANOVA analyses for the scaled items. All manipulations were effective at a p < .05 level.

Two True/False items tested the manipulation of procedural treatment. Most respondents (n = 75, 97.4%) correctly answered the item measuring respondents' perceptions of the mother's opportunity to present her side of the story (i.e., voice),  $\chi^2$  (1) = 69.20, p < .001. Most participants (n = 66, 85.7%) also answered the second item correctly; there was no significance test because this was not a manipulation, meaning that the correct answer was the same for both groups. Finally, to test the ultimate success of the manipulation in altering procedural justice judgments, I compared participants' global procedural justice judgments between those in the fair and unfair treatment conditions. As expected, participants in the unfair treatment condition (M = 4.15, SD = 2.02) perceived the hearing procedure as less fair than participants in the fair treatment condition (M = 5.16, SD = 1.61),  $F(1, 75) = 5.86, p = .02, \eta_p^2 = .07$ .

Two items, each measured on seven-point scales assessed the interactional justice manipulation. Participants in the unfair interactional treatment condition perceived greater judicial disapproval of the mother (M = 6.79, SD = .62) than participants in the

fair interactional treatment condition (M = 3.69, SD = 1.78), F(1, 75) = 102.86, p < .001,  $\eta_p^2 = .58$ . Similarly, those in the unfair condition (M = 3.58, SD = 1.52) thought the judge gave the mother less explanation for his decision than those in the fair condition (M = 5.64, SD = 1.31), F(1, 75) = 40.86 = p < .001,  $\eta_p^2 = .35$ . Again, I also compared global interactional justice judgments. Participants in the unfair condition (M = 2.92, SD = 1.87) thought the judge treated the mother less fairly than those in the fair condition (M = 5.59, SD = 1.65), F(1, 75) = 44.28, p < .001,  $\eta_p^2 = .37$ .

Four items measured on seven-point scales assessed the severity of neglect manipulation. Participants in the severe condition (M = 5.68, SD = 1.31) perceived the case as more serious than participants in the moderate condition (M = 3.37, SD = 1.41), F $(1, 75) = 54.70, p < .001, \eta_p^2 = .42$ . Likewise, compared to those in the moderate condition (M = 3.25, SD = 1.32), those in the severe condition (M = 5.81, SD = 1.27)perceived Hailey's living environment as more harmful, F(1, 75) = 75.52, p < .001,  $\eta_p^2 =$ .50. Those in the severe condition (M = 6.70, SD = .62) also perceived the home as significantly dirtier than those in the moderate condition (M = 4.43, SD = 1.65), F(1, 75)= 62.58, p < .001,  $\eta_p^2$  = .46. Finally, because the severity of neglect manipulation was a proxy for distributive justice, I analyzed mean differences on global distributive justice. As expected, participants in the severe neglect condition (M = 5.51, SD = 1.30) perceived the hearing outcome (i.e., refusal to reunite Hailey with her mother) as more fair than participants in the moderate neglect condition (M = 3.33, SD = 1.87), F(1, 75) = 34.87, p< .001,  $\eta_D^2 = .32$ . To confirm that participants correctly understood the outcome, they were asked to indicate whether Hailey was allowed to return home. All participants (n =77, 100%) responded correctly.

The final manipulated variable was assigned role—judge or parent. The role induction was confirmed with one multiple choice question asking participants to choose which of four options (county attorney, parent attorney, judge, or parent) was the role they were assigned at the beginning of the study. The majority of participants (n = 72, 93.5%) correctly answered the question,  $\chi^2$  (3) = 65.50, p < .001, V = .92.

Manipulation Checks (Experimental Sample)

I ran the exact same analyses as with the pilot sample. The results followed the same pattern, although a greater proportion of the experimental sample failed at least one manipulation check as compared to the pilot sample, leading to generally smaller manipulation effect sizes. Nonetheless, the majority of participants correctly answered each dichotomous variable, group differences on continuous variables were all significant, and most effect sizes were moderate to large.

Regarding the procedural treatment manipulation, 86.1% (n = 278) of participants correctly answered whether the mother had no opportunity to present her side of the story,  $\chi^2$  (1) = 172.19, p < .001, V = .73, and 77.4% (n = 250) correctly answered that the judge had no discretion in the matter. The manipulation had its intended ultimate effect: participants in the fair treatment condition (M = 4.76, SD = 1.91) perceived the process as fairer than those in the unfair treatment condition (M = 3.94, SD = 2.37), F (1, 317) = 11.60, p = .001,  $\eta_p^2$  = .04. However, this was a small effect size, likely significant only because of the large sample size. Regarding the interactional treatment manipulation, participants in the fair treatment condition perceived less judicial disapproval toward the mother (M = 3.89, SD = 1.88), F (1, 317) = 210.32, p < .001,  $\eta_p^2$  = .40, greater explanation to the mother (M = 5.14, SD = 1.53), F (1, 317), 57.40, p < .001,  $\eta_p^2$  = .15, and greater overall interactional justice, (M = 5.41, SD = 1.70), F (1, 313) = 125.52, p <

.001,  $\eta_p^2$  = .29, as compared to participants in the unfair treatment condition (disapproval M = 6.42, SD = 1.14; explanation M = 3.64, SD = 1.98; interactional justice M = 3.07, SD = 2.02).

Similarly, participants in the severe neglect condition perceived the case as more serious (M = 6.00, SD = 1.11), F(1, 321) = 208.31, p < .001,  $\eta_p^2 = .39$ , more harmful to Hailey (M = 6.02, SD = 1.09), F(1, 321) = 256.76, p < .001,  $\eta_p^2 = .44$ , involving a dirtier home (M = 6.56, SD = .91), F(1, 321) = 181.95, p < .001,  $\eta_p^2 = .36$ , and the outcome as more fair (M = 5.34, SD = 1.89), F(1, 317) = 113.81, p < .001,  $\eta_p^2 = .26$ , as compared to participants in the moderate neglect condition (seriousness, M = 3.64, SD = 1.76; harm, M = 3.44, SD = 1.73; dirtiness, M = 4.57, SD = 1.63; distributive justice M = 3.04, SD = 1.96). Finally, most respondents (n = 279, 86.4%) correctly answered the role induction manipulation check,  $\chi^2(3) = 242.43$ , p < .001, V = .87. Similarly, most respondents (n = 303, 93.8%) correctly identified the outcome.

In total, only 193 participants correctly answered the four dichotomous manipulation check items that had right and wrong answers. Reducing the sample size to these respondents would result in each condition containing between 9 and 17 respondents, greatly reducing statistical power and potentially impairing the ability to detect small effects, especially with regard to the more complex analyses conducted herein. Therefore, I did not do this. Instead, I ran many of the analyses with both the full sample and with the subsample of those who correctly answered all manipulation checks (hereafter, the "correct subsample").

## Data Screening and Scale Construction

I engaged in data screening and scale construction simultaneously. For each set of items intended to work as a scale, I examined their skewness, kurtosis, and distribution histograms to gauge normality (Table 3.1). As a rough guideline, I was concerned about items with skewness over +/-.8 and kurtosis over +/- 2. However, I considered the distribution of each item in the context of the other items in that scale, as well as the distribution of the scale itself. In the end, none of the items were seriously abnormal and no more than one of the items in each scale had skewness or kurtosis outside the guidelines. For those items that did have skewness or kurtosis levels outside the guidelines, they were only marginally beyond the threshold. For these reasons, I chose to keep all items in their raw format. In addition to normality statistics, Table 3.1 also reports the means and standard deviations for all items.

Once satisfied that the items had adequate distributions, I moved on to creating the scales. First, I confirmed that the items were correlated with each other, as they should be if they all measure the same construct. Second, I tested the scale's reliability using Cronbach's alpha. I examined the Corrected Item-Total Correlation and the alpha if each item was deleted to decide whether any items should be dropped from the scale. The reliability statistics supported keeping every item in each scale. Finally, I created the scales by averaging responses for each item and examined the distribution of scale scores for normality using the same procedure as for the individual items.

All scales had adequate reliability and roughly normal distributions (Table 3.1). I created three global justice judgment scales (procedural, interactional, and distributive). I also created subscales for the two subcomponents of interactional justice that were used

in certain analyses: interpersonal and informational justice. Note that even though interpersonal and informational justice were manipulated separately, their means and standard deviations provided some evidence that participants had varied evaluations of the two constructs. This variability allowed me to use these subscales in place of global interactional justice scale in many of the subsequent analyses. Higher scores on all of these scales represented higher perceptions of fairness. As expected, all three global scales were significantly, positively, and largely correlated with each other (Table 3.2). I reran the analyses with the correct subsample and the same pattern emerged.

Table 3.1. Descriptive Statistics for Scales and Items for the Full Experimental Sample

Scale/Item	M	SD	Skewness	Kurtosis
Justice Judgments				
Procedural Justice Scale ( $\alpha = .77$ )	3.88	1.42	01	63
Was the mother able to express her views?	3.31	2.27	.29	-1.51
Did the mother have influence over the	2.39	1.77	.96	38
decision?				
Was the hearing procedure free of bias?	3.76	2.11	.12	-1.31
Did the hearing procedure uphold ethical	5.12	1.72	73	29
standards?				
Interactional Justice Scale ( $\alpha = .95$ )	4.39	1.88	18	-1.26
Interpersonal Justice Scale ( $\alpha = .98$ )	4.05	2.29	14	-1.55
Did the judge treat the mother in a polite	4.16	2.37	20	-1.56
manner?				
Did the judge treat the mother with	3.93	2.31	06	-1.55
dignity?				
Did the judge treat the mother with	3.90	2.31	02	-1.55
respect?				
Did the judge refrain from improper	4.24	2.48	23	-1.63
remarks?				
Informational Justice Scale ( $\alpha = .88$ )	4.73	1.72	36	87
Was the judge candid with the mother?	5.17	1.93	85	41
Did the judge explain his decision	4.42	2.10	29	-1.29
thoroughly?				
Did the judge explain the procedures	4.71	2.00	47	-1.04
thoroughly?				
Were the judge's explanations reasonable?	4.58	2.03	37	-1.09
Distributive Justice Scale ( $\alpha = .98$ )	4.35	2.13	21	-1.36
Did the decision reflect what the mother	4.17	2.18	13	-1.40
deserved?				

W .1 1 · · ·	1.16	2.10	20	1 22
Was the decision appropriate given the situation?	4.46	2.19	29	-1.33
Was the decision justified given what the mother did?	4.44	2.17	25	-1.35
Justice Outcomes				
Decision Satisfaction Scale ( $\alpha = .97$ )	4.17	2.14	11	-1.41
The judge's decision was acceptable.	4.49	2.17	27	-1.35
I am satisfied with the judge's decision.	4.28	2.28	16	-1.49
The mother should be satisfied with the	3.55	2.23	.28	-1.38
decision.				
I agreed with the judge's decision.	4.33	2.27	22	-1.46
Leader Evaluation Scale ( $\alpha = .98$ )	4.08	2.12	10	-1.35
The judge was a good judge.	4.25	2.11	19	-1.25
I really liked the judge.	3.83	2.15	.03	-1.35
The judge did a good job at this hearing.	4.12	2.22	12	-1.41
I respect this judge.	4.15	2.20	16	-1.37
Legal Compliance Scale ( $\alpha = .89$ )	5.23	1.32	65	.08
The mother will try to follow her case plan.	5.10	1.52	57	29
The mother will attend her next hearing on time.	5.54	1.46	75	15
time. The mother will follow the judge's orders.	5.35	1.51	74	02
The mother will be reunited with her	4.92	1.63	74 50	02 35
daughter.	4.92	1.03	30	55
Collective Esteem Scale ( $\alpha$ = .95)	3.30	1.56	.29	48
Most people would respect the mother's values.	3.58	1.62	.10	54
Most people would think highly of the	3.34	1.67	.27	73
mother.	2.00	1.64	40	1.6
Most people would approve of the mother.	2.98	1.64	.48	46
<b>Identity Judgments</b>				
Respect (same as Collective Esteem, above)	-	-	-	-
Pride $(\alpha = .89)$	3.47	1.51	.16	26
The mother is proud to think of herself as a parent.	3.55	1.75	.12	80
The mother is complimented by praises of	3.59	1.67	.18	52
parents. The mother talks up being a parent to her	3.30	1.61	.23	47
friends.	4.64	1 40	1.0	4.77
Identity ( $\alpha = .80$ )	4.64	1.42	10	47
Being a parent says a lot about the mother is.	4.40	1.84	16	90
The mother feels personally responsible as a parent.	4.55	1.88	34	89
The mother takes criticism of parenting	4.52	1.80	29	86

personally.

ocietal Costs and Benefits				
Respect for Parents' Rights ( $\alpha = .93$ )	3.43	1.76	.17	-1.03
Removal is an infringement on parents' rights.	3.43	1.85	.25	-1.00
In this case, removal was an infringement.	3.49	2.09	.25	-1.27
Child protection hearings are an infringement.	3.32	1.79	.27	90
This hearing was an infringement.	3.45	2.03	.23	-1.21
Magnitude of Threat of Child Neglect ( $\alpha = .90$ )	5.38	1.30	55	50
Child neglect is a big problem in our society.	5.57	1.46	71	44
In this case, I am worried about the mother's behavior.	4.81	1.82	52	72
I am worried about the extent of neglect in our society.	5.57	1.48	79	21
Child neglect is a risk to children's safety.	5.92	1.29	-1.10	.59
In this case, the mother's behavior was a threat.	4.96	1.88	53	83
In cases like this, our society should be worried.	5.41	1.64	80	32
Efficacy of Child Protection as Intervention	4.36	1.42	15	38
$(\alpha = .91)$				
When CPS intervenes, the risk is effectively reduced.	4.31	1.69	20	73
CPS is an effective intervention system.	4.26	1.65	24	59
Removing children from their homes is a good strategy.	4.64	1.65	25	64
Court hearings are effective at reducing the risks.	4.38	1.57	21	40
Court hearings are effective at reducing the amount.	4.21	1.65	19	50
Fairness of Child Removal ( $\alpha = .92$ )	4.41	1.73	16	96
The way the child was removed from her home was fair.	4.33	2.13	18	-1.31
Removing the child was a fair response.	4.51	2.17	32	-1.30
We use fair procedures to remove children.	4.48	1.67	36	47
I approve of the removal procedures used by society.	4.34	1.73	14	77

I created four scales to represent each of the four measured justice outcomes: decision satisfaction, leader evaluation, legal compliance, and collective esteem. Most,

though not all, of the justice judgments were significantly correlated with each other (Table 3.2). Legal compliance stood out as unrelated to all but one other justice outcome—collective esteem. However, within the correct subsample, the correlation between legal compliance and decision satisfaction became significant, r (188) = -.23, p = .001, and the correlation with leader evaluation became marginally significant, r (186) = -.13, p = .08. In general, the pattern of correlations supported the argument that these outcomes are independent, although related. Higher scores on these scales indicated higher decision satisfaction, more positive leader evaluation, increased predictions of legal compliance, and greater collective esteem/respect.

Societal costs and benefits were measured with four separate constructs: infringement of child protection on parents' rights, magnitude of threat of neglect, efficacy of child protection as an intervention, and fairness of child removal. To simplify hypothesis-testing, I explored whether the former two and latter two scales could be combined into overall costs and benefits scales. Reliability for the costs scale was inadequate, so I kept the measures as four separate scales. Higher scores represented higher perceptions of infringement, higher perceived threat, higher perceived efficacy, and higher perceptions of fairness of child removal. All scales were significantly correlated (Table 3.2). The correlations maintained their directions and significance in the correct subsample.

To test the GEM, I measured three constructs related to social identity: pride, respect, and social identification. These constructs were only used in structural equation

Table 3.2. Correlations among Justice Judgment, Justice Outcome, and Social Identity Scales

						6						
		7	3	4	5	9	7	∞	6	10	11	12
1. Procedural												
Justice												
2. Interactional	.64**											
Justice												
3. Distributive	**69	.58**										
Justice												
4. Decision	**02	.57**	.92**									
Satisfaction												
5. Leader	.71**	.82**	**87.	**08								
Evaluation												
6. Legal	.05	.14*	08	90	.03							
Compliance												
7. Collective	20**	11	46**	43**	27**	.31**						
Esteem/												
Respect												
8. Pride	07	01	30**	28**	13	.30**	.72**					
9. Identification	04	.03	16**	16**	03	.36**	.44**	**05				
10. Respect for	42**	28**	**09'-	61**	46**	.16**	**09	.48**	.32**			
Parents' Rights												
11. Magnitude of	.43**	.33**	.64**	**09	.48**	.11*	43**	24**	.05	51**		
Threat												
12. Efficacy of	.51**	.39**	.53**	.56**	.55**	60:	19**	08	.02	37**	.51**	
CFS												
13. Fairness of	**59	.48**	.82*	.83**	.72**	04	42**	27**	1	64**	**69	.73**
Removal												
Note * : / 05 ** : / 01	2 / 01											

*Note.* \* p < .05 \*\* p < .01

modeling, so no scale construction was necessary. However, for the sake of confirming that the individual items were normal, I included them in the preliminary analyses and in Table 3.1. Higher scores on these scales represented greater collective esteem/respect, identity, and pride. All three scales were significantly positively correlated (Table 3.2), and remained so with the correct subsample.

While the demographic variables were not central to the hypotheses, I nonetheless did explore the influence of demographic characteristics on the relationships being studied. Therefore, as a preliminary step, I examined the distribution of the four continuous demographic variables that were measured: age, political orientation, number of children, and age of youngest child. Age (M = 47.58, SD = 13.19, skewness = -.07, kurtosis = -.78), political orientation (M = 3.97, SD = 1.69, skewness = .11, kurtosis = -.63), and age of youngest child (M = 19.88, SD = 12.77, skewness = .48, kurtosis = -.70) were fairly normally distributed, but number of children was abnormal (M = 2.34, SD = 1.34, skewness = 3.05, kurtosis = 19.77). The distribution was clearly distorted by an outlier; one respondent had 13 children. Once that case was excluded, the distribution became more normal (M = 2.28, SD = 1.11, skewness = 1.01, kurtosis = 1.33). For subsequent analyses with this variable, I used the trimmed version.

# Demographic Analyses

I proposed no hypotheses about relationships between demographic characteristics and the variables of interest in this study. Nonetheless, I anticipated that demographic characteristics might be related to the variables and those relationships needed to be controlled. I tested for these relationships by running a series of correlations or multivariate analyses of variance (MANOVAs) between each of the demographics and

all the scale scores. For continuous demographic characteristics (i.e., age, political orientation, number of children, and age of youngest child), I ran correlations. For dichotomous variables (i.e., gender and whether the participants have children), I ran MANOVAs. I chose to run MANOVAs, rather than a series of ANOVAs, because the dependent variables were all theoretically interrelated and most were statistically correlated. Table 3.3 summarizes the results of the demographic analyses for both the full and correct subsamples; this summary only reports the *p*-values and the effect sizes for significant relations.

None of the demographic characteristics were significantly related to any of the justice judgments, even in the correct subsample. On the other hand, two of the justice outcomes were related to demographic characteristics. Using the full sample, collective esteem was significantly related to two demographic characteristics: age, r (317) = -.14, p = .01, and gender, F (1, 312) = 14.82, p < .001,  $\eta_p^2$  = .05. Males (M = 3.63, SD = 1.52) attributed greater collective esteem to the mother in the case than did females (M = 2.96, SD = 1.55). Legal compliance was marginally related to whether participants had children, F (1, 309) = 3.99, p = .05,  $\eta_p^2$  = .01. However, with the correct subsample, these relations became weaker and two became non-significant. The effect for gender on collective esteem remained significant, F (1, 183) = 4.52, p = .04,  $\eta_p^2$  = .02. Again, males (M = 3.39, SD = 1.49) had higher scores than females (M = 2.90, SD = 1.61).

The relationships between demographic characteristics and the first social identification variable—respect—were reported in the prior paragraph, because the respect construct in the GEM model is the same as the collective esteem construct in the

Table 3.3. A Summary of the Relations between Participant Demographics and Scale Scores for the Full Sample and the

		Correct Subsample	ple		
	Age	Gender	Political Orientation	Does participant have children?	Number of children
<b>Justice Judgments</b>					
Procedural Justice	ns	ns	ns	ns	ns
Distributive Justice	ns	ns	ns	ns	ns
Interactional Justice	ns	ns	ns	ns	ns
<b>Justice Outcomes</b>					
Decision Satisfaction	ns	ns	ns	ns	ns
Leader Evaluation	ns	ns	ns	su	ns
Legal Compliance	ns	ns	ns	$p = .05, \eta_p^2 = .01$	ns
				ns	
Collective Esteem	r = .14, p = .01	$p < .001,  \eta_p^2 = .05$	ns	ns	ns
	ns	$p = .04, \eta_p^2 = .02$			
Identity Judgments					
Respect	r = .14, p = .01	$p < .001,  \eta_p^2 = .05$	ns	ns	ns
(same as CE)	ns	$p = .04,  \eta_p^2 = .02$			
Pride	r =11, p = .04	$p < .001, \eta_p^2 = .04$	r =12, p = .03	ns	r =20, p = .01
	ns	$p = .03, \eta_p^2 = .03$	ns	$p = .02, \eta_p^2 = .03$	r = .21, p = .02
Identity	ns	ns	ns	ns	ns
Societal Costs and Benefits					
Respect for Parents'	ns	$p < .001,  \eta_p^2 = .06$	ns	su	ns
Kignts		$p = .01, \eta_p^2 = .04$			

ns		su	ns
ns		ns	su
su 90.=	= .08	su	ns
$1.15, p = .01$ $p < .001, \eta_p^2 = .06$ ns	$p < .001, \eta_p^2 = .08$	ns	ns
ll l	ns	ns	ns
Magnitude of Threat of Child r Neglect		Efficacy of Child Protection	Fairness of Child Removal

statistics for each test; that information is provided in the text. Where cells are split, the top row summarizes the relationship for the full sample and the bottom row summarizes the relationship for the correct subsample. Note. This table summarizes the effect sizes and significance levels for the relations displayed. It does not report the full

OMJ. Identity was not related to any of the demographic characteristics. Pride, on the other hand, was significantly related to four of the demographic variables: age, r (317) = -.11, p = .04; political orientation, r (317) = -.12, p = .03; number of children, r (194) = -.20, p = .01; and gender, F (1, 314) = 14.21, p < .001,  $\eta_p^2$  = .04. Compared to females (M = 3.16, SD = 1.53), males (M = 3.79, SD = 1.43) attributed a higher sense of pride in being a parent to the mother. In the correct subsample, the age and political orientation effects were smaller and not statistically significant. The size effect for gender decreased slightly, F (1, 187) = 4.77, p = .03,  $\eta_p^2$  = .03, again with males (M = 3.63, SD = 1.45) reporting higher scores than females (M = 3.15, SD = 1.56). The correlation for number of children increased slightly, r (125) = -.21, p = .02. Finally, a new effect emerged: participants who had children (M = 4.83, SD = 1.38) attributed significantly higher identity as a parent to the mother than participants who did not have children (M = 4.29, SD = 1.57), F (1, 186) = 5.66, p = .02,  $\eta_p^2$  = .03.

Of the societal costs and benefits scales, efficacy of child protection and fairness of removal were not significantly related to the demographic characteristics. However, males (M = 3.84, SD = 1.70) had significantly higher scores than females (M = 2.98, SD = 1.74) on respect for parents' rights, F(1, 308) = 19.40, p < .001,  $\eta_p^2 = .06$ , and males (M = 5.08, SD = 1.25) had lower scores than females (M = 5.70, SD = 1.30) on perceived magnitude of the threat of child neglect, F(1, 308) = 18.17, p < .001,  $\eta_p^2 = .06$ . Magnitude of threat was also correlated with age, F(1, 308) = 1.15, F(1,

although the effect size was a little smaller. In contrast, males (M = 5.17, SD = 1.26) had lower scores than females (M = 5.87, SD = 1.17) on magnitude of threat, F(1, 182) = 15.05, p < .001,  $\eta_p^2 = .08$ , and that effect grew a little stronger.

In conclusion, the demographic relationships were not strongly or consistently related to any of the theoretical measures collected for this study. They were not at all related to justice judgments. Age, gender, and whether the participants had children were related to a subset of the justice outcomes, but those effects were all small. The most consistent relationship was between demographic characteristics and one of the identification measures—pride. Pride was significantly related to whether the participants had children, the number of children, and gender; those effects were also generally small, although the effect for number of children was the largest in this set of analyses. Regarding societal costs and benefits, age and gender were significantly related to two of the measures, but these effects sizes were also small. For subsequent analyses, I controlled for the demographic characteristics that were significantly related to the measures used in each particular test. For example, RH 1 implicated only the justice judgment measures, none of which were significantly related to participants' demographics; therefore, I did not control for any demographics in testing RH 1. RH 1: In a confirmatory factor analysis, the four-factor organizational justice measurement model will perform significantly better than both the traditional and threefactor organizational justice models.

I conducted separate confirmatory factor analyses (CFAs) testing the one-, two-, three- and four-factor models (Table 3.4). Remember that the one-factor model combined all justice judgments into a single latent construct. The two-factor model, typically used

in psycholegal justice models, distinguishes between distributive and procedural justice. The three- and four-factor models were both variations on the organizational justice model, where the three-factor model posited that procedural, distributive, and interactional justice were independent judgments and the four-factor model further separated interactional justice into interpersonal and informational justice.

Table 3.4. Model Fit Statistics for Increasingly Complex Models of Justice Judgments

	$\chi^2$	CFI	RMSEA	RMSEA Confidence	SRMR
				Interval	
Full sample					
(N = 322)					
1-factor	2741.58	.57	.28	.2729	.18
2-factor	1528.56	.77	.21	.1922	.16
3-factor	1088.49	.84	.17	.1718	.12
4-factor	559.60	.92	.12	.1113	.07
Correct subsample					
(N = 184)					
1-factor	1476.78	.59	.27	.2628	.18
2-factor	877.08	.77	.20	.1922	.16
3-factor	590.98	.85	.16	.1518	.11
4-factor	370.01	.92	.12	.1114	.07

*Note.* Chi-square values were all significant at p < .0001. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; SRMR = standardized root mean square residual.

I used maximum likelihood estimation with Mplus Version 5.1 (Muthén & Muthén, 1998), structural equation modeling software. Mplus offers a number of fit indices to gauge the success of the model in describing the data. Researchers and statisticians give different advice on which indices are better, but all generally agree that researchers should interpret multiple indices to determine whether the model is successful. For example, Hu and Bentler (1999) recommend that researchers use a combination of the SRMR and one of the comparative fit indices (e.g., RMSEA or CFI) to conclude adequate model fit. Table 3.4 reports the results of four model fit indices for both the full sample and correct subsample: chi-square, the comparative fit index (CFI),

the root-mean-square error of approximation (RMSEA), and the standardized root mean residual (SRMR).

The model chi-square has an advantage because it is the only commonly available index that gives a significance value. A non-significant chi square value means that the data fits the model well. Note that none of the CFAs evaluated here had a non-significant chi-square value. However, the chi-square test has important limitations. First, it is a conservative test—the model chi-square tests whether the model *perfectly* fits the analyzed covariance matrix derived from the raw data. Second, the chi-square value is inflated and the *p*-value deflated with large samples. Therefore, it is unwise, and often inaccurate, to rely solely on the chi-square test to gauge model fit.

In contrast to the model chi-square, CFI (Bentler, 1990) tests the current model against a null model where there are no relationships between the observed measures. Generally, a CFI greater than .90 is considered an adequately-fitting model, and a CFI greater than .95 is considered a good-fitting model (Hu & Bentler, 1995; Hu & Bentler, 1999). According to these guidelines, only the four-factor CFA reached an acceptable level (CFI = .92).

The RMSEA is referred to as a "badness of fit" index, because it measures the lack of fit in the model to a perfectly saturated model. One advantage of the RMSEA is that it prefers parsimony; it will always favor the least complex of two models with equivalent "explanatory power" (Kline, 2005). Because it measures lack of fit, lower scores are better. Browne and Cudeck (1983) recommend that an RMSEA above .10 indicates an unacceptable fit, a value between .08 and .10 indicates mediocre fit, a value between .05 and .08 indicates acceptable fit, and a value below .05 indicates good fit. Hu

and Bentler (1999) suggested that a value below .06 indicates that the model has good fit, although they encourage researchers not to rely solely on any one index to draw that conclusion. Regardless of standard, none of the CFAs tested here had an RMSEA value in an acceptable range. The four-factor model was closest (RMSEA = .12), but the value was still too high to be considered even mediocre.

The SRMR measures the difference between the observed and predicted covariance residuals. Because it is also a measure of error variance, lower values indicate better fit. Hu and Bentler (1999) recommended using a cut-off value of .08 to reject a model as unacceptable. Following this rule, only the four-factor CFA had acceptable fit (SRMR = .07).

Considering the fit statistics together, and using Hu and Bentler's (1999) rule-of-thumb, the four-factor model was accepted as an adequate description of the data. The four-factor model was the only of the four models that had CFI and SRMR values in the acceptable range, although it is important to note that even for the four-factor model, the CFI was not high enough to be considered good-fitting and the RMSEA was outside the acceptable range. In other words, even the four-factor model had room for improvement, at least as it explained this data sample.

To make modification decisions, I used the modification indices and parameter estimates as a guide. All indicators significantly loaded onto their latent factors. Many of the modification recommendations were not theoretically-grounded and some were theoretically inconsistent. In the end, I made two modifications. First, I dropped one of the procedural justice items because it was redundant with another. Second, I correlated

two of the interpersonal justice items to account for potential measurement error resulting from their highly similar wording.

The modified model had good global fit,  $\chi^2$  (83) = 316.04, p < .001; CFI = .96; RMSEA = .09, RMSEA Confidence Interval: .08-.10; SRMR = .06. In fact, the CFI, RMSEA, and SRMR all indicated acceptable fit, although the RMSEA remained a little high. Because this model included one less item than the original four-factor model, I could not perform a  $\chi^2$  difference test to conclude that the modified model performed significantly better. Instead, to evaluate the relative fit of the original four-factor model with its modified version, I compared the Akaike information criterion (AIC) and Bayesian information criteria (BIC) values; lower scores indicate better fit. Both indices of model fit supported the modified model (AIC = 15187.92, BIC = 15384.21) over the original model (AIC = 16510.33, BIC = 16714.15).

Finally, I reran the modified model with the correct subsample. Again, the model performed adequately,  $\chi^2$  (83) = 245.71, p < .001; CFI = .95; RMSEA = .10, RMSEA confidence interval: .09-.12; SRMR = .06. Compared to the original model with the correct subsample (AIC =10015.13, BIC =10188.74), the modified model performed better (AIC = 9242.77, BIC =9245.25). Figure 3.1 (p. 78) illustrates the modified fourfactor model together with the structural model described in the next section. RH 2-4: Consistent with the OMJ, relative to the other justice judgments, procedural justice will more strongly predict legal compliance, interpersonal justice will more strongly predict collective esteem, and distributive justice will more strongly predict decision satisfaction.

To test this set of hypotheses I started with the simplest structural model, posited by Colquitt (2001), in which each of the justice judgments was uniquely related to each of the justice outcomes (Figure 1.1, p. 33). This model contrasted with one that I thought was more likely, where justice judgments were relatively stronger predictors, but not unique predictors, of their associated outcomes,. If the simple model with single paths to each outcome fit the data well, then there would be no need to proceed to a more complex assessment of the relative strength of the justice judgments as predicting justice outcomes.

I tested the simple model as a structural equation model, using maximum likelihood estimation with Mplus software (Muthén & Muthén, 1998). Following Bollen's (1989) two-step approach, first I tested the measurement model, which had good fit in the full sample,  $\chi^2$  (376) = 890.24, p < .001; CFI = .96; RMSEA = .07, RMSEA confidence interval: .06-.07; SRMR = .05, and in the correct subsample,  $\chi^2$  (376) = 688.85, p < .001; CFI = .96; RMSEA = .07, RMSEA confidence interval: .06-.07; SRMR = .05.

Table 3.5 reports the correlations between the latent justice judgments and the latent justice outcomes. In general, the pattern of correlations did not support the simple structural model. None of the justice outcomes was uniquely correlated with only one justice judgment. In addition, of all specific hypotheses about judgment-outcome relationships, only the relationship between distributive justice and decision satisfaction was supported by the correlations; distributive justice had the strongest correlation with decision satisfaction. As expected most of the justice judgments were significantly related to the justice outcomes, suggesting that each judgment might load onto multiple

outcomes. Importantly, collective esteem was *negatively* correlated with three of the justice judgments—procedural, informational, and distributive. And, in the correct subsample, legal compliance was negatively correlated with procedural and distributive justice. This negative correlation indicated that increasingly fair treatment was related to a decreased perception that the mother should feel a sense of respect. These negative relationships are contrary to the OMJ theory and Colquitt's (2001) findings.

Table 3.5. Correlations between Latent Justice Judgments and Latent Justice Outcomes in the Organizational Model of Justice

Legal	Decision	Leader	Collective
Compliance	Satisfaction	Evaluation	Esteem
Full: .08	Full: .84**	Full: .84**	Full:37**
Sub:15*	Sub: .83**	Sub: .83**	Sub:52**
Full: .09	Full: .47**	Full: .77**	Full:04
Sub: .04	Sub: .45**	Sub: .79**	Sub:14
Full: .13*	Full: .66**	Full: .85**	Full:21**
Sub:05	Sub: .60**	Sub: .84**	Sub: .30**
Full:07	Full: .94**	Full: .81**	Full:48**
Sub:26**	Sub: .93**	Sub: .78**	Sub:61**
	Full: .08 Sub:15* Full: .09 Sub: .04 Full: .13* Sub:05	Compliance         Satisfaction           Full: .08         Full: .84**           Sub:15*         Sub: .83**           Full: .09         Full: .47**           Sub: .04         Sub: .45**           Full: .13*         Full: .66**           Sub:05         Sub: .60**           Full:07         Full: .94**	Compliance         Satisfaction         Evaluation           Full: .08         Full: .84**         Full: .84**           Sub:15*         Sub: .83**         Sub: .83**           Full: .09         Full: .47**         Full: .77**           Sub: .04         Sub: .45**         Sub: .79**           Full: .13*         Full: .66**         Full: .85**           Sub:05         Sub: .60**         Sub: .84**           Full:07         Full: .94**         Full: .81**

*Note.* Full sample ("Full") N = 320, correct subsample ("Sub") n = 177.

Based on the results of the first step, I concluded that the measurement model was acceptable and moved on testing the structural model. To begin, I tested the simple structural model proposed by Colquitt (2001) wherein each justice judgment was uniquely linked to an individual justice outcome, adding the relevant demographic variables as controls. The simple model had poor fit in the full sample,  $\chi^2$  (463) = 1402.45, p < .001; CFI = .93; RMSEA = .08, RMSEA confidence interval: .08-.08; SRMR = .13, but slightly better fit in the correct subsample,  $\chi^2$  (463) = 1021.51, p < .001;

<sup>\*</sup> p < .05 \*\* p < .01.

CFI = .93; RMSEA = .08, confidence interval: .07-.9; SRMR = .14. For the full sample, the CFI was in the acceptable range, the RMSEA was in the mediocre range, and the SRMR was in the unacceptable range.

Because I expected each of the justice judgments to load onto multiple justice outcomes, but did not have specific expectations about these relative relationships, I next tested a model in which all four justice outcomes were each regressed onto each of the four justice judgments (i.e., the "full path model"). This model fit well in the full sample,  $\chi^2$  (451) = 1023.08, p < .001; CFI = .96; RMSEA = .06, confidence interval: .06-.07; SRMR = .05, and in the correct subsample,  $\chi^2$  (451) = 296.10, p < .001; CFI = .96; RMSEA = .06, confidence interval: .06-.07; SRMR = .05. For both samples, the modification indices suggested correlating two of the indicators on the informational justice construct, which I did (full sample:  $\chi^2$  (450) = 985.63, p < .001; CFI = .96; RMSEA = .06, RMSEA confidence interval: .06-.07; SRMR = .05; correct subsample:  $\chi^2$  (450) = 772.93, p < .001; CFI = .96; RMSEA = .06, RMSEA confidence interval: .05-.07; SRMR = .05).

Figure 3.1 illustrates the modified full-path model and standardized parameter estimates from the full sample. While the model as a whole was well-supported, there was mixed support for the hypotheses about specific relationships between justice judgments and outcomes proposed by the OMJ. As predicted, interpersonal justice was the strongest predictor of legal compliance and distributive justice was the strongest predictor of decision satisfaction. There was partial support for the hypothesis regarding procedural justice. Procedural justice significantly predicted legal compliance, but it was not the strongest predictor. Instead, distributive justice was the strongest predictor of

legal compliance. Finally, there was no support for the hypothesis that informational justice would most strongly predict collective esteem. In fact, the path from informational justice to collective esteem was not significant; instead, distributive justice most strongly predicted collective esteem.

Beyond the relationships described above, the results of this analysis provided additional information that was contrary to the OMJ. To begin with, distributive justice was the most consistent predictor of justice outcomes. In addition, the model included two negative parameter estimates, both of which were contrary to the OMJ. First, distributive justice negatively predicted legal compliance. Second, distributive justice negatively predicted collective esteem, meaning that higher judgments that the outcome was fair led to decreased perceptions that the mother should be respected.

As an exploratory step, I ran a final set of models. The arguments underlying the OMJ presuppose that the person evaluating the decision-making situation is the recipient of the decision. However, in this study, I manipulated whether participants were decision-makers or decision-recipients. As a final analysis, I reran the modified full path model separately for those assigned to be parents and those assigned to be judges. For assigned parents, the model was acceptable,  $\chi^2$  (450) = 852.53, p < .001; CFI = .94; RMSEA = .08, RMSEA confidence interval: .07-.08; SRMR = .06. In contrast, the model would not converge for the assigned adults, suggesting that this model of justice does not translate to decision-makers' justice judgments and outcomes.

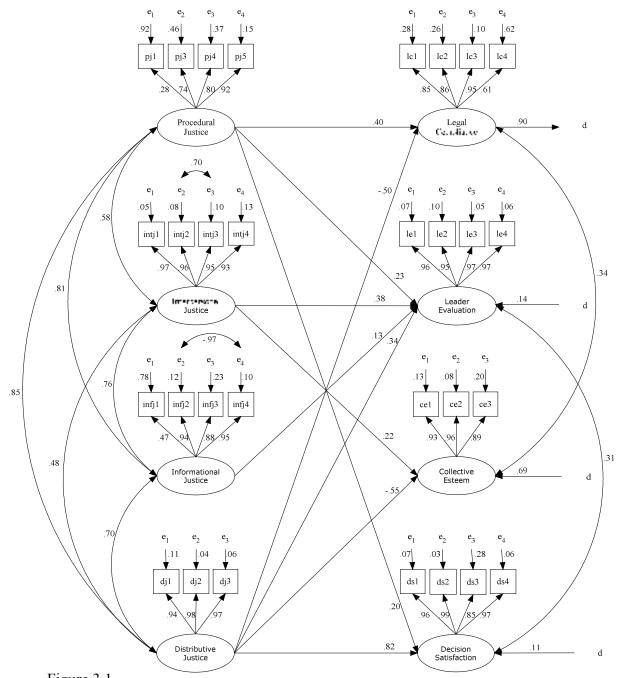


Figure 3.1.
Results of the organizational model of justice (OMJ), modified full path version. For indicators, the labels correspond to their order in the measure (Appendix F). All indicator loadings were significant. For paths, standardized estimates are reported here. Only significant paths are drawn. All latent factor variances were set to 0. Abbreviations: e = error, d = disturbance.

RH 5-7: The group engagement model will adequately represent the data. All paths specified by the model will be significant.

I tested this hypothesis in a structural equation model. First, I converted the GEM, as illustrated by Tyler and Blader (2003; Figure 1.2, p. 35), into a higher-order structural equation model. The first-order latent constructs were the four justice judgments (procedural, interpersonal, informational, and distributive), decision satisfaction, three identity judgments (pride, respect, and identification), and legal compliance. The second-order latent constructs were procedural justice, which was measured by procedural, interpersonal, and informational justice judgments; resource judgments, which were measured by distributive justice and decision satisfaction; and social identity, which was measured by pride, respect, and identification.

For the most part, this translation of the model was consistent with theory and with the authors' subsequent work (Blader & Tyler, 2009). However, certain changes should be considered modifications of the underlying theoretical model. First, I replaced the four-component model of procedural justice proposed by Tyler & Blader (2003) with the three components (i.e., procedural, interpersonal, and informational justice) from the organizational model of justice. Second, while the original model distinguished between psychological and behavioral engagement and further between discretionary and mandatory behavioral engagement, I included only "engagement" in this structural model, which was defined in terms of perceived likelihood that the mother would comply with the law. The design of this study prevented me from measuring actual compliance and this measure was the best substitute.

I began by testing the measurement model. Because the measurement model was so large, I divided it into several portions—procedural justice, resource judgments, social identity, and legal compliance—and tested each independently. I started with the procedural justice measurement model. Even making recommended modifications, the model had poor fit in the full sample,  $\chi^2$  (51) = 384.53, p < .001; CFI = .92; RMSEA = .14, RMSEA confidence interval: .13-.16; SRMR = .13.

Because the hierarchical model was unacceptable, I next tested a model that would be more consistent with the organizational model, which proved well-fitting in earlier analyses. This model consisted of three latent factors—procedural, interpersonal, and informational justice—but no second-order justice judgment. The model was acceptable in the full sample,  $\chi^2$  (51) = 249.20, p < .001; CFI = .95; RMSEA = .11, RMSEA confidence interval: .10-.12; SRMR = .07, and marginally acceptable in the correct subsample,  $\chi^2$  (50) = 178.41, p < .001; CFI = .95; RMSEA = .11, RMSEA confidence interval: .0-.13; SRMR = .09. I replaced this measurement model with the hierarchical one proposed by Tyler and Blader (2003; Blader & Tyler, 2003), which also required modifying the structure of the group engagement model to add paths from each of the three types of justice to social identity, rather than just a single path from the second-order procedural justice factor.

The measurement model for resource judgments had excellent fit in both the full sample,  $\chi^2$  (13) = 26.93, p = .01; CFI = 1.00; RMSEA = .06, RMSEA confidence interval: .03-.09; SRMR = .01, and the correct subsample,  $\chi^2$  (13) = 28.96, p = .01; CFI = .99; RMSEA = .08, RMSEA confidence interval: .04-.12; SRMR = .01. The social identity measurement model also had excellent fit in the full sample,  $\chi^2$  (31) = 58.28, p = 002;

CFI = .99; RMSEA = .05, RMSEA confidence interval: .03-.07; SRMR = .03; and the correct subsample,  $\chi^2$  (31) = 42.46, p = .08; CFI = .99; RMSEA = .04, confidence interval: .00-.07; SRMR = .03. Finally, the measurement model of legal compliance had excellent fit in the full sample,  $\chi^2$  (2) = 3.46, p = .18; CFI = 1.00; RMSEA = .05, RMSEA confidence interval: .00-.13; SRMR = .01, and in the correct subsample,  $\chi^2$  (2) = 3.20, p = .20; CFI = 1.00; RMSEA = .06, RMSEA confidence interval: .00-.16; SRMR = .02.

After confirming the measurement portion of the GEM, I tested the structural model (Figure 3.2). The model also included demographic variables as controls. They are not shown in the drawing, but they are reported in Table 3.6. Because the heart of the GEM is that perceptions of social identity mediate the relationships between justice judgments and resource judgments, on the one hand, and group engagement, on the other, I also measured indirect effects from procedural justice, interactional justice, and resource judgments to legal compliance via social identity. The indirect effect sizes are reported in Table 3.7.

Table 3.6. Standardized Parameter Estimates for Demographic Variables in the Group Engagement Model in the Full Sample

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	DV: Social	l Identity	DV: Le	egal
			Compli	ance
	Estimate	S.E.	Estimate	S.E.
Age	06	.06	.10	.06
Gender	.18**	.05	13*	.06
Political Orientation	05	.05	.08	.06
Whether Participants Had Children	.12	.09	.03	.09
Number of Children	18*	.09	.07	.09

*Note.* DV = Dependent Variable. S.E. = Standard Error. Gender was coded 0 (female) and 1 (male). Whether participants had children was coded 0 (no) and 1 (yes). Political orientation was scaled so that higher scores indicated greater self-reported conservatism. \*  $p < .05 ** p \le .01$ .

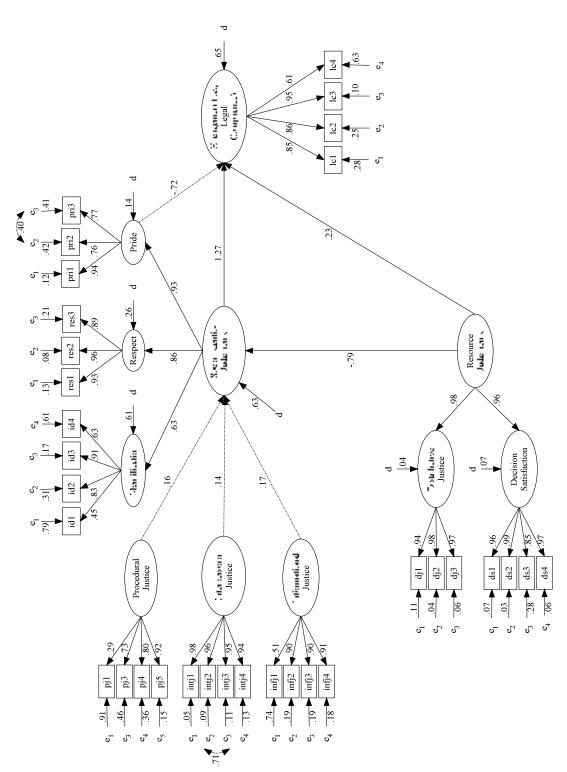


Figure 3.2. Results of the group engagement model (GEM). For indicators, the labels correspond to their order in the measure (Appendix F). All indicator loadings were significant. All drawn paths were theoretically predicted to be significant. Solid lines represent paths that were significant; dashed lines represent non-significant paths.

Table 3.7. Indirect Effects of Justice and Resource Judgments on Legal Compliance Via Social Identity in the Full Sample

	Estimate	S.E.	_
Procedural Justice	.20	.26	_
Interpersonal Justice	.18	.13	
Informational Justice	.22	.23	
Resource Judgments	-1.10*	.04	

*Note.* S.E. = Standard Error.

The model had excellent fit in the full sample,  $\chi^2$  (612) =1189.50, p < .001; CFI = .95; RMSEA = .05, RMSEA confidence interval: .05-.06; SRMR = .06. While the overall model fit was excellent, there was only partial support for the individual paths specified by the group engagement model. The core hypothesis of the GEM is that social identity judgments mediate the relationships between justice judgments and group engagement. That hypothesis was not supported by this data. First, social identity was not a strong predictor of legal compliance; while the standardized estimate was significant, the unstandardized estimate was not. Second, neither procedural, interpersonal, nor informational justice significantly predicted social identity, meaning that social identity did not mediate the relationships between these justice judgments and legal compliance. The social identity mediation hypothesis was supported with respect to resource judgments; the indirect effect from resource judgments to legal compliance via social identity was significant.

As predicted, resource judgments directly predicted legal compliance, so that increased decision satisfaction and fairness led to increased confidence that the mother would comply with the court and the case plan. In general, resource judgments had a greater influence on the outcome variables in this model than did procedural,

<sup>\*</sup>p < .05.

interpersonal, and informational justice; this is also inconsistent with the GEM. As a final note, pride did not directly predict legal compliance.

Because justice judgments did not predict legal compliance indirectly via social identity judgments, as predicted by the group engagement model, I explored whether an alternative model that added direct paths between these justice judgments and legal compliance would perform better. The model was exactly the same aside from the addition of these three paths, and it also had excellent fit,  $\chi^2$  (609) = 1176.47, p < .001; CFI = .95; RMSEA = .05, RMSEA confidence interval: .05-.06; SRMR = .06. In this model, the direct path between procedural justice and legal compliance was significant ( $\beta$  = .38, p = .046), but interpersonal and informational justice judgments were not significant predictors of legal compliance. Adding the direct paths did little, then, to add explanatory power to the model.

I reran the GEM, without the additional direct paths between justice and legal compliance, using the correct subsample. The model retained its excellent fit,  $\chi^2$  (612) = 1006.01, p < .001; CFI = .95; RMSEA = .06, RMSEA confidence interval: .05-.06; SRMR = .06. Again, all factor loadings were significant and all residual variances were small. The pattern of significant paths was almost identical to that with the larger sample, with one important exception: there were was not a significant direct effect between resource judgments and legal compliance. Nonetheless, the indirect effect between resource judgments and legal compliance remained significant. In all other ways, the path structure was the same as with the full sample.

Finally, as with the OMJ, the theory underlying the GEM presupposes that the people evaluating the situation and inferring information about their social identity are

decision-recipients. I fit the GEM separately to assigned parents and assigned judges. As with the OMJ, the model did not converge for the assigned judges. In contrast, the model had marginally acceptable fit for the assigned parents,  $\chi^2$  (612) = 1025.94, p < .001; CFI = .93; RMSEA = .07, RMSEA confidence interval: .06-.07; SRMR = .07, and different parameter estimates compared to the full sample. Specifically, for assigned parents, interpersonal justice did predict social identity, even though it did not for the full sample. On the other hand, the significant relationship between social identity and legal compliance dropped out. Therefore, there was still no support for the social identity mediation hypothesis. In addition, resource judgments directly predicted social identity, but ceased to predict legal compliance. In the assigned parents sample, none of the theorized predictors of legal compliance was significant, although the parameter estimate for resource judgments was marginally significant, p = .10.

RH 8-9: Participants in the moderate neglect condition will report lower distributive justice and decision satisfaction than participants in the severe neglect condition.

Participants in the moderate neglect condition will exhibit weaker relationships between procedural and interactional justice and their outcomes than participants in the severe neglect condition.

I tested these hypotheses simultaneously using a multivariate analysis of covariance (MANCOVA) in which three of the four manipulations (procedural treatment, interactional treatment, and neglect severity) were entered as factors and distributive justice, decision satisfaction, leader evaluation, legal compliance, and collective esteem were entered as dependent variables. Based on the preliminary analyses, I also included age, gender, and whether participants had children as covariates.

All three demographic variables had significant multivariate effects, although they all had fairly small effect sizes: age, F(5, 293) = 2.56, p = .03,  $\eta_p^2 = .04$ ; gender, F(5, 293) = 2.47, p = .03,  $\eta_p^2 = .04$ ; whether participants' had children, F(5, 293) = 2.52, p = .03,  $\eta_p^2 = .04$ . The between-subjects tests revealed patterns consistent with preliminary analyses. Specifically, age, F(1, 297) = 4.45, p = .04,  $\eta_p^2 = .02$ , and gender, F(1, 297) = 6.86, p = .01,  $\eta_p^2 = .02$ , were significantly related to perceptions of collective esteem, but not to any of the other dependent variables. None of the between-subjects tests reached significance for whether participants had children.

As expected, there were significant multivariate effects for both interactional treatment, F(5, 293) = 29.83, p < .001,  $\eta_p^2 = .34$ , and severity of neglect, F(5, 293) = 32.56, p < .001,  $\eta_p^2 = .36$ . Surprisingly, there was no multivariate effect for procedural treatment. Tables 3.8 and 3.9 report the means and significance tests for the significant between-subjects effects for the interactional treatment and severity of neglect manipulations. As hypothesized, participants in the severe neglect condition reported higher distributive justice and decision satisfaction than those in the moderate neglect condition. This finding confirms that the severity of neglect manipulation did serve as a

Table 3.8. Significant Group Differences on Justice Outcomes for the Interactional Justice Manipulation in the Full Sample

	M(SD)	(D)	F(1, 297)	Effect size
	Unfair Treatment Condition	Fair Treatment Condition	- value	$(\eta_p^2)$
Interactional Treatment				
Decision Satisfaction	3.77 (2.09)	4.58 (2.11)	16.35	.05
Leader Evaluation	3.10 (2.00)	5.08 (1.73)	107.53	.27
Distributive Justice	3.89 (2.14)	4.79 (2.05)	21.74	.07
Note. All group differences were significant at $p < .01$	were significant at $p < .01$ .			
Table 3.9. Significant Gro	Table 3.9. Significant Group Differences on Justice Outcomes for the Severity of Neglect Manipulation in the Full Sample $M(SD)$ Effect s	For the Severity of Neglect Manipu $D$ )	ulation in the Fu $F(1, 297)$	ill Sample Effect size
	Moderate Neglect Condition	Severe Neglect Condition	— value	$(\eta_p^2)$
Severity of Neglect				
Decision Satisfaction	3.02 (1.91)	5.36 (1.66)	127.79	.30
Leader Evaluation	3.29 (1.98)	4.96 (1.90)	75.27	.20
Legal Compliance	5.45 (1.33)	5.02 (1.27)	8.95	.03
Collective Esteem	3.95 (1.31)	2.59 (1.48)	59.65	.17
Distributive Justice	3.15 (1.94)	5.58 (1.57)	142.87	.33
Noto All aroun differences were similficant at $n<0.01$	yere significant at n < 01			

Note. All group differences were significant at p < .01.

proxy for a manipulation of distributive justice. However, contrary to the hypothesis, there were no significant interactions between severity of neglect and interactional or procedural justice. Thus, severity of neglect did not reduce the strength of the relationship between procedural and interactional justice judgments and their associated outcomes.

In addition to the effects described above, participants in the high severity condition reported higher leader evaluation, lower legal compliance, and lower collective esteem. The interactional treatment manipulation was significant for three of the dependent variables. Those in the fair interactional treatment condition reported higher levels of decision satisfaction, leader evaluation, and distributive justice.

As a final test, I reran the MANCOVA with just those participants who correctly answered the manipulation checks. The results were largely identical. The only difference was that there were no significant multivariate effects for any of the demographic characteristics.

RH 10: Distributive justice judgments and decision satisfaction will moderate the relationships between procedural and interactional justice and their associated outcomes.

I ran three sets of regression analyses, each using a different justice outcome (leader evaluation, legal compliance, and collective esteem) as the dependent variable (Table 3.10). As independent variables, in the first step, I entered the procedural, interpersonal, informational, and distributive justice scales, as well as the decision satisfaction scale and relevant demographic variables. In the second step, I added two-way interaction terms representing interactions between each of the three justice judgments of interest and both distributive justice and decision satisfaction.

The first regression predicted leader evaluation. Because preliminary analyses revealed no related demographic characteristics, I did not control for demographics in this regression. The first step, with only main effects, was statistically significant,  $R^2 = .86$ , F(5, 297) = 364.67, p < .001. There were significant main effects for interactional justice, informational justice, decision satisfaction, and distributive justice. The second step was also statistically significant,  $R^2 = .86$ , F(11, 291) = 170.18, p < .001, but it was not significantly better than the regression with only main effects. Contrary to hypotheses, there were no significant interactions with distributive justice and decision satisfaction, meaning that these judgments did not moderate the relationships between the other justice judgments and leader evaluation. In the second step, the main effects for procedural justice and interactional justice were significant.

The second set of regressions predicted legal compliance. All the same variables were entered with the addition of whether participants had children, because preliminary analyses revealed that this variable was related to participants' predictions about legal compliance. Again, the main effects regression was significant,  $R^2 = .09$ , F(6, 295) = 4.85, p < .001, but note that the variables accounted for quite less variance compared to the model predicting leader evaluation. Two justice judgments were significant predictors of legal compliance: informational and distributive justice. No other variables were significant. The second step was also significant,  $R^2 = .10$ , F(12, 289) = 2.79, p = .001, but it was not significantly better than step one. Again, there were no significant interactions. In the second step, the only significant predictor of legal compliance was the main effect for informational justice.

The final set of regressions predicted collective esteem (Table 3.10). Again all the justice judgments and decision satisfaction were entered, along with gender and age. Step one, the regression with just main effects and demographics, was significant,  $R^2 = .33$ , F(7, 293) = 20.12, p < .001, with interpersonal justice, distributive justice, and gender all significantly predicting collective esteem. The second step was also significant,  $R^2 = .36$ , F(14, 286) = 11.39, p < .001, and accounted for significantly more variance than the first model,  $R^2_A = .03$ ,  $F_A(7, 286) = 2.12$ , p = .04. The main effect for distributive justice remained significant, as did the main effect for gender.

As hypothesized, there was a significant interaction effect for interactional and distributive justice in predicting collective esteem. To follow-up, I performed a median split for distributive justice and then correlated interpersonal justice and collective esteem for the two samples. For participants who perceived the outcomes as fair (i.e., high distributive justice), interpersonal justice was correlated with collective esteem, r (164) = .24, p < .001; however, for those who perceived the outcome as unfair, there was no significant relationship between interpersonal justice and collective esteem. Thus, reactions to the outcome moderated the relationships between interactional justice and collective esteem, although it is important to note that this moderation effect was in the opposite direction predicted. Prior researchers (e.g., Brockner & Wiesenfeld, 1996) found that the relationship between interactional justice and justice outcomes was stronger when distributive justice was low; in this sample, the relationship was stronger when distributive justice was high.

Table 3.10. Do Distributive Justice and Decision Satisfaction Moderate the Relationships Between Other Justice Judgments and Their Outcomes? Standardized Beta Weights for Regression Models Predicting Justice Outcomes in the Full Sample

	Leader Evaluation	uation	Legal Con	Compliance	Collective esteem	e esteem
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Main Effects						
Procedural Justice	.03	.16*	.04	.03	.10	20
Interpersonal Justice	.38**	.50**	90:-	21	.24**	00.
Informational Justice	.17**	07	.38**	.50	90	.16
Distributive Justice	.12	.22	42**	.18	65**	-1.38**
Decision Satisfaction	.41**	.19	.12	46	.04	.55
Interaction Effects						
PJ * DJ		40	,	-1.12	ı	1.27
PJ * DS	1	.17	1	1.17	ı	70
IntJ*DJ	1	24	1	98.	ı	1.28*
IntJ * DS	1	.04	1	63	ı	94
InfJ*DJ	ı	.36	ı	64	ı	.49
InfJ * DS	1	.17	1	.39	1	06:-

Note. Step 1 included all main effects and controlled demographic variables. Step 2 added the interactions of interest. \* p < .05 \*\* p < .01.

As a final step, I reran all the analyses with only the correct subsample. The pattern of results largely replicated the full sample, with one exception. I found evidence of moderation in the regression predicting legal compliance, where procedural justice interacted with distributive justice. Follow-up analyses showed no significant correlation between procedural justice and legal compliance for either participants with high distributive justice or those with low distributive justice. It is likely that there was too little power with the correct subsample to detect differences between the two groups. RH 11-12. As compared to decision-recipients, decision-makers' decision satisfaction will be more strongly related to their judgments about the costs and benefits of child protection than to their procedural justice judgments. Even when evaluating procedural justice, decision-makers will be more strongly influenced by costs and benefits than traditional procedural justice criteria.

Heuer, Penrod, and Kattan (2007) found that a person's role in the decisionmaking process affected their perceptions of justice and satisfaction with the decision.

Specifically, they found that decision-makers were more influenced by outcome
concerns, which they defined as distributive justice and an analysis of societal costs and
benefits, when they made judgments about procedural justice and decision satisfaction. In
contrast, decision-recipients were more influenced by the traditionally defined
prerequisites to justice judgments, which they operationalized as process neutrality and
positive interpersonal treatment.

As a preliminary step, I investigated whether participants in the different role conditions reported different levels on the justice judgments, justice outcomes, and societal costs and benefits by running a series of ANOVAs comparing mean differences

between assigned judges and assigned parents on each of the dependent variables. The only significant difference was in perceived respect: assigned judges (M = 3.09, SD = 1.48) rated significantly less respect than assigned parents (M = 3.53, SD = 1.63), F(1, 317) = 6.51, p = .01. Therefore, contrary to expectations, in this study, decision-makers and decision-recipients rated the scenario fairly similarly along all of the dimensions measured.

Despite the minimal group differences between decision-makers and decisionrecipients, the possibility of interaction effects remained. To test for these, I ran a series of multiple regressions for each of three dependent variables—global procedural justice, global interactional justice, and decision satisfaction (Table 3.11). For the independent variables, I entered participants' procedural, interactional, and distributive justice scale scores, which reflected perceptions of the traditional justice criteria. In addition, I entered the four societal costs and benefits scales—respect for parents' rights, magnitude of the threat of neglect, efficacy of the child protection system, and fairness of child removal. I entered all the two-way interaction terms between induced role and each of the other predictors. Significant interaction terms would suggest that role as a decision-maker versus a decision-recipient moderated the traditional relationships between procedural justice criteria and judgments. Regardless of whether interactions were present, I also ran the regressions separately for induced judges and induced parents, without the two-way interactions; this analysis allowed me to compare beta weights to evaluate the relative strength of the various predictors.

Table 3.11. Do Decision-Makers and Decision-Recipients Evaluate Decision Satisfaction, Procedural Justice, and Interactional Justice Differently? Results of Separate Regression Models for Induced Parents and Induced Judges

	Decision	Decision Satisfaction	Global Procedural Justice	al Justice	Global Interactional Justice	ional Justice
	Parents	Judges	Parents	Judges	Parents	Judges
Main Effects						
Procedural Justice Scale	.10*	.05	.41**	.41**	.13	90.
Interactional Justice Scale	.02	.01	.04	.10	.62**	**59.
Distributive Justice Scale	.71**	.74**	.33**	.43**	.14	.36**
Respect for Parents' Rights	90	01	17**	.02	10	07
Magnitude of Threat	90	.01	03	01	08	03
Perceived Efficacy of CPS	.03	01	00.	.17**	.07	04
Fairness of Child Removal	.16*	.16*	.10	05	.07	07
Controls						
Age	02	.04	08	02	07	03
Gender	.02	.03	.03	05	.03	00.

Note. These regressions were conducted with the full sample of participants. \* p < .05 \*\* p < .01.

I found only weak support for the hypothesis with regard to the first dependent variable—decision satisfaction. In the regression with the full sample,  $R^2 = .88$ , F (16, 278) = 127.51, p < .001, there were no significant role interactions, suggesting that role was not a moderator where evaluations of the decision were concerned. In the separate regressions, distributive justice and fairness of removal were the strongest predictors for both samples, again, suggesting that induced judges and induced parents were evaluating the decision similarly. However, there was also a significant effect for procedural justice for parents, but not judges, which provided some support for the argument that parents were more influenced by traditional procedural justice criteria when evaluating decisions, but this effect was not strong enough to cause a significant role by procedural justice interaction in the full sample.

I found arguably stronger support for the hypothesis with regard to the second dependent variable—global perceptions of procedural justice. There were still no significant role interactions in the full-sample regression,  $R^2 = .78$ , F(16, 279) = 63.04, p < .001; however, a comparison of the beta weights for induced judges and induced parents showed that induced parents relied more strongly on traditional procedural justice criteria than outcome criteria when evaluating procedural justice. Induced judges, on the other hand, had a higher beta weight for distributive justice and a significant and higher beta weight for perceived efficacy of the child protection system, both of which are outcome concerns.

I found even stronger support for the hypothesis with the third dependent variable—global perceptions of interactional justice. Here, there was a significant interaction between induced role and distributive justice judgments,  $\beta = -.27$ , model  $R^2 = -.27$ 

.81, F(16, 277) = 75.49, p < .001. Separate regressions for each induced role showed that induced judges' evaluations of interactional justice were influenced by distributive justice, while induced parents' evaluations of interactional justice were not.

In sum, these analyses provided some support for Heuer, Penrod, and Kattan's (2007) contention that decision-makers are more outcome-focused when they evaluate procedural justice, interactional justice, and decision satisfaction. Compared to decision-recipients, decision-makers were more strongly influenced by distributive justice and certain societal costs and benefits, specifically, perceived efficacy of the child protection system and fairness of child removal. Decision-recipients, on the other hand, were more influenced by the traditional criteria of procedural justice. Nonetheless, in this study, even decision-recipients were heavily influenced by distributive justice.

## Chapter 4. Discussion

Overview of Design and Purpose

The purpose of this dissertation was to evaluate the utility of justice models in the child protection context. I tested two models of procedural justice: the organizational model of justice (OMJ; Bies & Moag, 1986; Colquitt, 2001) and the group engagement model (GEM: Tyler & Blader, 2003). In addition, I tested two potential moderators of the relationship between procedural justice and justice outcomes, both based on prior research. Building on work by Brockner and Wiesenfeld (1996) and others (Cropanzano, Slaughter, & Bachiochi, 2005; Skarlicki, Folger, & Tesluk, 1999), I investigated whether outcome judgments acted as a moderator, such that procedural justice was a more powerful influence on outcomes when distributive justice and decision satisfaction were low. Finally, building on work by Heuer, Penrod, and Kattan (2007), I tested whether the role of the evaluator as a decision-recipient or decision-maker acted as a moderator, such that decision outcomes and societal costs and benefits influenced decision-makers more, while traditional relational criteria influenced decision-recipients more when they evaluated procedural and interactional justice.

To achieve this purpose, I created an experimental factorial design in which I manipulated procedural treatment, interactional treatment, severity of neglect, and assigned role. The first two manipulations were designed as straightforward manipulations of the traditional procedural justice criteria. The third manipulation was used to test the moderator effect of outcome concerns (Brockner & Wiesenfeld, 1996), and was demonstrated to directly cause differences in distributive justice judgments. The final manipulation was used to directly test the moderator effect of the evaluator's role;

participants were assigned to be either a judge (i.e., decision-maker) or parent (i.e., decision-recipient).

Finally, the context of the test was child protection decision-making. Participants read a case file that described a case of child neglect. There is reason to believe that perceptions of justice might bear a strong influence on parents' behavior within the child protection system, including their compliance with the requirements of their caseplan (Dumbrill, 2006; Drake, 1994; Kapp & Propp, 2002; Thoburn, Lewis, & Shemmings, 1995). In addition, we know that judges and caseworkers weigh their perceptions that the parents are compliant heavily in their own decision-making in these cases (Dalgleish & Drew, 1989; DeRoma, Kessler, McDaniel, & Soto, 2006; Jellinek et al., 1992; Jones, 1993; Larrieu et al., 2008). In short, this evidence suggests that procedural justice theory would be an appropriate framework for understanding parents' compliance in child protection cases. This study was an initial test of whether reactions to procedural treatment during child protection hearings might have carryover effects on parents' willingness to comply with the law.

## Summary of Results

RQ 1: Which measurement model best accounts for participants' justice judgments? Over the past thirty years, justice researchers have proposed several measurement models of procedural justice. Each model makes the argument that people evaluate justice along a specific number of domains, between two and four. Arguably, the authors did not intend the first and simplest measurement model to be a measurement model at all, but rather, an introduction to the concept of procedural justice. Starting with Thibaut and Walker (1975), legal psychologists argued that perceptions of distributive

justice (i.e., outcome fairness) were not people's sole concern nor were they people's sole determinants of their perceptions of the favorability of the outcome. Instead, argued these researchers, procedural justice judgments were equally, perhaps more, relevant.

Following Thibaut and Walker's seminal work, justice researchers adopted this two-factor framework and developed it fully in the literature. During the 1980s, legal psychologists like Leventhal (1980; Leventhal, Karuza, & Fry, 1980) and Tyler (1984, 1988, 1989) began a line of research attempting to identify exactly what criteria make a legal procedure seem fair to people. This line of work marked the beginning of attempting to identify a measurement model of justice judgments, and the two-factor model remains predominant in the field of legal psychology even today.

By the mid 1980s, however, organizational psychologists also took an interest in justice research. Starting with Bies and Moag (1986), organizational justice researchers theorized that justice evaluations are made up of three, not two, independent judgments. Distributive justice remained in their theory, but Bies and Moag (1986; Bies, 2001) argued that "procedural justice" was too broad a construct, and that common definitions of "procedural justice" actually combined two separate justice judgments—procedural and interactional justice. "Procedural justice" was defined as an evaluation of the process itself, whereas "interactional justice" was an evaluation of the authority making the decision. Procedural justice judgments emerged from people's perceptions that the process was accurate and neutral, whereas interactional justice judgments came from people's perceptions that the authority was trustworthy, respectful, and explained the reason for the decision. This three-factor model of procedural justice is still predominant in the organizational justice field today; however, recently, Colquitt (2001) has proposed

that interactional justice is also too broad a construct. Instead, he proposed that "interactional justice" is better conceived as two constructs—interpersonal and informational justice. Interpersonal justice refers to the authority's treatment of the decision recipient, while informational justice refers to the evaluations of the authority's willingness to provide an explanation about the decision that they made, as well as evaluations of the quality of that explanation.

In this dissertation, I tested each of these measurement models—a single factor, two factors, three factors, and four factors. Measurement of the first three models was experimentally-derived, meaning that I manipulated each of the three constructs central to those three models. Differences in severity of neglect served as manipulations of distributive justice. Participants perceived the outcome of maintaining the child's placement outside the home as less fair when the mother had engaged in a moderate level of child neglect as opposed to a severe level. Varying whether the jurisdiction allowed parents to speak during the protective custody hearing was the direct manipulation of procedural justice and varying the judge's attitude toward the mother and varying whether he provided her any information about the decision-making process and decision served as the manipulation of interactional justice. This last manipulation included the components of interpersonal and informational justice, which researchers have recently added to the mix of justice factors. I did not independently manipulate these two factors, but instead measured participants' evaluations of both and found that they varied considerably, which allowed me to also test the four-factor model of justice.

I used confirmatory factor analyses to test each of the four models, and only the four-factor model of justice had adequate model fit. Thus, the four-factor organizational

model of justice (OMJ) provided the best structural description of people's evaluations of justice in this study. In other words, people were clearly distinguishing between distributive, procedural, interpersonal, and informational justice. The implication from this finding is that the two- and three-factor models of procedural justice, which are predominant today, may not be accurately describing how people really evaluate justice in a given context. In fact, these models are likely clumping evaluations of the procedure, interpersonal treatment, and informational treatment together, which clouds the differential effects that each of these justice judgments might have.

The question of differential effects is a necessary step to validating the four-factor model, because the OMJ makes explicit predictions that each justice judgment is uniquely linked to specific justice outcomes. The question of differential effects was also tested and will be discussed in the next section, but before moving on I must acknowledge an alternative interpretation of the results of the confirmatory factor analyses. It is possible that the general support for the four-factor model is an artifact of the measurement technique used in this study.

I adopted Colquitt's (2001) measure of justice judgments in this dissertation. The advantages of adopting this measure were that the measure has been tested and validated, it is widely used in the field, and Colquitt used it in his own test of the four-factor model. In terms of measurement, there was an important disadvantage. The measure includes four distinct sections, each of which measures one of the four types of justice (see Appendix F). There are no construct labels for the items and no indication of their construct membership in the instrument. However, the items within each factor appeared next to each other in the survey. The result might be that participants merely answered

each cluster of questions similarly because of their placement in the instrument, thus causing greater support for the four-factor model over the other measurement models. As I mentioned, Colquitt (2001) also used this approach, and his study has been the only one to thoroughly test the four-factor model. In future tests of the OMJ, researchers should take great care to use alternative measures and alternative arrangements of this measure to provide stronger support for the model.

above, a requisite step to validating the OMJ is establishing that the factors are differentially related to their predicted outcomes. In the OMJ, Colquitt (2001) argued that distributive justice should be more strongly related to evaluations of the favorability of the decision, procedural justice should be more strongly related to evaluations of the institutional and support for the institution. In this study, the operational definition of organizational support involved legal compliance, or participants' predictions of the likelihood that the mother would ultimately comply with the judge's orders and case plan. Colquitt (2001) further argued that interpersonal justice should predict evaluations of the authority making the decision. Finally, informational justice should more strongly predict evaluations about the quality of the relationship between the decision-recipient and the decision-maker or deciding organization. In this study, as in Colquitt (2001), relationship quality was measured in terms of collective esteem, or the participants' judgments that the mother is a respected member of society.

Colquitt (2001) tested a model in which each justice judgment had a single path to its outcome. I tested this single path model and found little support; the model fit statistics were inadequate, so I did not interpret the parameters. In contrast to Colquitt's

(2001) single path model, I proposed that each of the justice judgments would predict multiple outcomes, but that each justice judgment would more strongly relate to its associated outcome. In other words, I expected that the core relationships proposed by the OMJ would be there, but that a model with more paths would better fit the data. The primary reason for this argument was the knowledge that justice judgments, while they may operate independently, are still somewhat related, and as such, they should still be somewhat related to multiple justice outcomes. If nothing else, 30 years of justice research has established that the relationships between justice judgments and outcomes is complicated.

The full path model performed well in that the model fit statistics were all in the adequate to good range. However, I found only partial support for the specific relationships hypothesized by the OMJ. I will discuss each justice outcome in turn, starting with those hypotheses that that results supported. I found full support for the OMJ's predictions regarding distributive justice: distributive justice predicted decision satisfaction more strongly than did any other justice judgment. In fact, this relationship had the strongest standardized weight in the entire model. That this finding was the strongest should not be surprising, as it is among the most robust in the justice literature. A number of researchers (Roch & Shanock, 2006; Sweeney & McFarlin, 1993) have replicated the connection between outcome fairness and personal evaluations of the outcome.

In fact, this relationship between distributive justice and acceptance or satisfaction with the outcome is at the core of the procedural justice research movement of the 1970s and 1980s. It was Thibaut and Walker's (1975) argument that perceptions of the

procedure might also affect participants' reactions to outcomes that sparked the field of justice research as we know it today. Further, Tyler and colleagues (Tyler, 1989, 1994, 2006; Tyler & Blader, 2000; Tyler, Casper, & Fisher, 1989; Tyler, Rasinski, & McGraw, 1985) have argued and found that, in many circumstances, procedural justice can be an even stronger predictor of decision satisfaction than is distributive justice. This study did not support Tyler's contention. Although procedural justice was a significant predictor of decision satisfaction, it was weaker than distributive justice was. Perhaps more importantly, the current definition of procedural justice was narrower in this portion of the study, so that it did not map well onto Tyler's definition. In fact, Tyler's definition of procedural justice includes components of interpersonal and informational justice, neither of which significantly predicted decision satisfaction here.

I also found full support for the hypothesis that interpersonal justice judgments would more strongly predict leader evaluation than would any of the other justice judgments. The argument for the link between interpersonal justice and leader evaluation is straightforward. Because interpersonal justice judgments result from people's perceptions of how respectfully they are treated by the decision-maker, it is these judgments that most strongly influence their evaluations of that decision-maker. While each of the other justice judgments was significantly predictive of leader evaluation, the standardized weight for interpersonal justice was highest. This finding provides support for the hypothesis that interpersonal justice is a separate construct, and that it is independent from informational justice. The fact that informational justice had the weakest loading onto leader evaluation also supports the contention that the two are

separate justice judgments. However, it should be noted that these two latent constructs were highly correlated, which means that they are, at least, interrelated.

I found partial support for the hypothesis that procedural justice would more strongly predict legal compliance. The argument for this link is that procedural justice refers to people's evaluations of the process used to make a decision—whether that process adheres to criteria associated with neutral, unbiased decision-making. As such, evaluations of procedural justice reflect on the organization or institution that created those procedures and link to outcomes relevant to evaluations of the organization or institution. In the organizational justice context, outcomes associated with procedural justice are usually discussed in terms of organizational support or citizenship (e.g., Ambrose & Schminke, 2003; Cropanzano, Prehar, & Chen, 2002; Roch & Shanock, 2006). Colquitt (2001) defined the outcome in terms of compliance with the rules of the institution. The best analog in the child protection context was compliance with the orders of the court and the case plan.

Consistent with the OMJ, procedural justice significantly predicted legal compliance, but it was not the strongest predictor. Instead, distributive justice was the strongest predictor of legal compliance. Importantly, distributive justice negatively predicted legal compliance. In other words, as participants' ratings of fairness increased, their predictions that the mother would comply with the law decreased. This finding is contrary to justice theories, the general tenet of which is that higher perceptions of justice will lead to more positive outcomes.

This somewhat surprising finding likely reflects the context of the decision.

Participants were reading about a case of child neglect and evaluating whether they

believed the mother would comply with her case plan. The distributive justice manipulation in this study was a manipulation of the mother's behavior that led to her losing, at least temporarily, custody of her child. In the moderate neglect condition, the primary allegation was that the child was home alone for a few hours in the evening because the mother had to work late. In the severe neglect condition, the child was also home alone, but the primary allegations described a dirty, unsafe home. It could be that in evaluating these two scenarios, participants were also making inferences about the mother's motivation and/or ability to care for her child. It could be that participants in the severe neglect condition, which was perceived as distributively more fair, believed that the mother would be less capable or willing to comply with the law. Whereas participants in the moderate neglect condition, which participants rated as distributively less fair, believed that the mother would be more capable or willing to comply with the law.

I did not measure participants' attributions of blame toward the mother, so this hypothesis remains untested. However, it is an important one for future research.

Judgments about personal responsibility are central to legal decision-making. If it is true that these kinds of judgments moderate some of the relationships between justice judgments and outcomes, then it may be that the OMJ will not neatly translate into a legal psychology context. It might also be that blame mediates the relationships between justice judgments and outcomes in the OMJ. Future justice research should explore the role of blame, especially in the legal context.

The final hypothesis of the OMJ, that informational justice would more strongly predict collective esteem, received no supported at all in this study. The argument for this hypothesis was that provision of adequate information communicates to decision-

recipients something about their position in the group. This hypothesis is related to the social identity arguments posed by Tyler (1989) in the group value model and Tyler and Blader (2003) in the group engagement model. All of these models argued that people look to how decision makers treat them to learn something about their social identity.

In this study, informational justice did not predict collective esteem at all. Instead, interpersonal justice and distributive justice predicted collective esteem, with distributive justice having the considerably stronger standardized weight. Again, distributive justice negatively predicted collective esteem, meaning that increased perceptions of outcome fairness predicted decreased perceptions that the mother is a respected member of society. And again, this finding might reflect attributional judgments on the part of participants. Participants might have themselves judged the mother as more blameworthy, and therefore less respectable, in the severe neglect condition. In turn, the neglect manipulation served to alter perceptions of distributive justice. In future research, it will be important to disentangle the effects of distributive justice from the effects of attributions of blame. In a similar vein, studies in which the participants are also the decision recipients, rather than reading about decision recipients, will also help to disentangle these effects.

RQ3: How well does the group engagement model account for justice outcomes? The group engagement model was proposed by Tyler and Blader (2003). The authors theorized that procedural justice has its effect on justice outcomes, in particular, group engagement, indirectly via social identity judgments. Labeled the "social identity mediation hypothesis" (Blader & Tyler, 2009), the authors argued that the value of procedural justice is that it communicates to decision-recipients that they are valued

members of the group. In other words, fair procedural treatment tells people that they have a positive social identity. This positive social identity, in turn, directly motivates people to engage in both mandatory and voluntary group behaviors.

Beyond this core argument, the authors of the group engagement model also made some secondary hypotheses. First, they argued that procedural justice, which they defined broadly to include aspects of procedural, interpersonal, and informational justice as defined in the OMJ, would have stronger effects on social identity, but that resource judgments would also have an influence on social identity. They defined resource judgments as a combination of perceptions of the outcome fairness and outcome favorability. The authors used the phrase "resource judgments," because these evaluations reflect general impressions about the amount of social resources and aid the group is willing to give the decision-recipient. The group engagement model argues that decision-recipients use their perceptions of resource availability and procedural justice to evaluate their own social identity, but that the procedural justice judgments should exert a stronger effect.

Using structural equation modeling, I found little support for the group engagement model in this study. First, social identity did not mediate the relationships between justice judgments and predictions about the mother's likelihood of legal compliance. In fact, procedural justice did not even directly predict legal compliance in this model. Therefore, these data did not support the core proposition of the group engagement model; however, the data did support the secondary proposition, that social identity would mediate resource judgments. Resource judgments directly predicted social identity, which significantly predicted legal compliance. In addition, as predicted with

regard to mandatory behaviors, resource judgments also directly predicted legal compliance.

Taken together, the results of this analysis suggested that resource judgments were stronger predictors of legal compliance than perceptions of any of the other justice judgments. This was consistent with the findings from the test of the OMJ, which showed that distributive justice had a stronger relationship with legal compliance than did the other three types of justice, with one important difference. In the test of the OMJ, distributive justice had a negative relationship with legal compliance. In this study, resource judgments linked positively to legal compliance. This finding is more consistent with justice research. Note, however, that resource judgments did negatively predict social identity. In other words, more positive resource judgments predicted less positive evaluations of the mother's social identity; when the mother received a fairer and more favorable outcome, participants perceived her as less deserving of social respect and personal pride. This is contrary to what one would expect, but might be an artifact of the distributive justice manipulation. In this study, fairer outcomes were the result of the mother committing more severe acts of neglect, which would reasonably lead to participants rating the mother less favorably.

This study marks one of the first complete tests of the group engagement and the very first test of the model in a legal context. Blader and Tyler (2009) recently published a test of the social identity mediation hypothesis in the organizational justice context and found support for the hypothesis. In this study, however, the results do not support the model. While the authors proposed the model as a general theory of justice, it could be that the model does not translate well into the legal context, or at least not the child

protection context. Where parental rights and child custody are concerned, people may be less concerned about procedural and interactional justice than they are about the outcomes themselves. The results of this study suggest that resource judgments are far more influential on predictions about legal compliance.

Another possibility is that the vignette design was not successful in creating the conditions for social identification. The GEM model argues that people learn something about their own social identities by being involved in an institutional decision-making process. It is possible that participants' investment in the process or this case was not great enough to implicate their own social identities.

RQ 4: Does the neglect severity moderate the relationships between justice judgments and outcomes?

Brockner and Wiesenfeld (1996) identified an interaction effect between justice judgments. Specifically, they noted that perceptions of procedural and interactional justice often interact with perceptions of distributive justice to affect the relationships between justice judgments and outcomes. Specifically, they reviewed the literature and observed that the relationship between procedural justice judgments and outcomes was generally strongest when distributive justice was low.

I tested for this interaction effect in two ways. First, I tested for an interaction effect within the factorial design of the study. The severity of neglect manipulation, by design, also manipulated participants' judgments of distributive justice. Those in the moderate neglect condition perceived the outcome—keeping the child out of her home—as less fair than those in the severe neglect condition. In a MANCOVA analysis, I tested

for interactions between the three justice judgments. I found no evidence of an interaction effect with the severity of neglect manipulation

Second, I tested for an interaction effect in a series of regression analyses, where I added interaction terms in the second step to test whether interactions uniquely contributed to prediction of justice outcomes. There was no evidence of an interaction effect for two of the three justice outcomes. There was some evidence of an interaction effect for collective esteem, but it was in the opposite direction predicted; the relationship between interpersonal justice and collective esteem was stronger when distributive justice was high, rather than when it was low. Taken together, these findings suggest that the interaction effect is not as robust as Brockner and Wiesenfeld (1996) argued. It could be that distributive justice was too strongly related to outcomes, or procedural and interactional justice were too weakly related too outcomes, for the interaction effect to manifest.

RQ 5: Does participant role—decision-maker (i.e., judge) versus decision-recipient (i.e, parent) moderate the relationships between justice judgments and outcomes? The final research question was whether the nature of a participant's role in the legal process moderated the relationships between justice judgments and outcomes. Heuer, Penrod, and Kattan (2007) found that decision-makers' evaluations of procedural justice and the decisions themselves were more strongly influenced by their judgments about the relative costs and benefits associated with the case than by the traditional procedural criteria. Even before conducting the primary analyses associated with this research question, I found some support for this hypothesis. In my test of the OMJ and the GEM, I ran the final models separately for assigned parents and assigned judges. For

both models, I was unable to get convergence for assigned judges, meaning that the models were not able to account adequately for the assigned judges' responses.

For the primary tests of this research question, I assigned participants to either a judge role (i.e., decision-maker) or a parent role (i.e., decision-recipient). In addition to justice judgments, I also asked them to rate the costs and benefits of child protection systems in general, including their tolerance for infringement of parents' rights, perceived magnitude of the threat of child neglect to society, perceived efficacy of the child protection system in protecting children from harm, and the fairness of removing children from their homes. I found only weak support for the argument that decision-makers and decision-recipients evaluate decision satisfaction differently. For both assigned parents and assigned judges perceptions of distributive justice and the fairness of child removal influenced decision satisfaction. However, procedural justice influenced assigned parents but not assigned judges. This finding supports the argument that traditional procedural criteria more strongly influence decision-recipients.

I found stronger support when measuring decision-makers and decision-recipients judgments about procedural and interactional justice. For procedural justice judgments, distributive justice evaluations more strongly influenced judges, although parents' distributive justice judgments were also significant predictors. For interactional justice judgments, there was a significant role by distributive justice interaction; assigned judges' distributive justice judgments were significant predictors, but they were not significant predictors for assigned parents.

In sum, the results of these analyses suggest that perceptions of distributive justice are more influential on decision-makers' procedural and interactional justice judgments

than they are for decision-recipients. This pattern of results is consistent with Heuer, Penrod, and Kattan (2007); however, it is important to note that my measure of societal costs and benefits, which was based on those authors' own measures, did not do a good job of accounting for decision-makers' judgments. The four scales were only sporadically related to justice judgments and only more related for assigned judges than assigned parents in one case. Perceived efficacy of the child protection system was a significant predictor of assigned judges', but not assigned parents', procedural justice judgments. It could be that perceived costs and benefits is not actually the best mechanism to explain decision-makers judgments. It may be more straightforward. Decision-makers might simply rely more strongly on distributive justice in evaluating outcomes, whereas decision-recipients rely more strongly on procedural and interactional justice. Before Thibaut and Walker's (1975) justice research focused on distributive justice and its associated outcomes. While the field has moved far from that in the past thirty years, it may be time to revisit the idea that distributive justice judgments can be a powerful force, especially where decision-makers are concerned.

A second possibility lies in the context. It is possible that the child protection context makes societal costs and benefits less of a driving force in making justice judgments, but this seems unlikely. Issues related to child maltreatment and the child protection system are inherently issues of societal costs and benefits. The questions of whether the state should remove children from their homes and for how long require a weighing of the costs and benefits to children and to society. If anything, one might expect the societal costs and benefits measures to be highly influential on both decision-makers and decision-recipients, but that was not the case in this study.

Taken together, these finding suggest that traditional models of procedural justice must be explicitly qualified as only accounting for decision-recipients' justice judgments and outcomes. This kind of qualification may already be implicit in the models. For example, some of the outcomes traditionally measured, like legal compliance, only make sense from the perspective of decision-recipients. However, what outcomes should we expect to be associated with decision-makers' judgments about fairness? For decision recipients, the research has robustly established some positive outcomes associated with perceiving fair treatment during the decision-making process. For decision-makers, Heuer, Penrod, and Kattan (2007) would perhaps argue that positive outcomes would be more strongly associated when a decision is born from a positive societal cost-benefit balance. However, I did not find that in this study. Decision satisfaction related only weakly to societal costs and benefits, and it was equally related for both assigned judges and assigned parents. Given that this is a new area of research, these results pose more questions than they answer.

#### *Implications for Procedural Justice Theory*

In addition to the specific research questions discussed above, the results of this dissertation have several general implications for procedural justice theory. Perhaps the broadest conclusion is that the field would benefit from a clarification of the research questions and conceptual definitions at use, especially in the legal psychology field. In organizational psychology, scholars have recently attempted to synthesize the research and bring coherence to the field. Perhaps most notably, Colquitt and Greenberg have released two edited books in the past ten years (Colquitt & Greenberg, 2003; Greenberg & Colquitt, 2005). In addition, several scholars have published conceptual reviews of the

literature (Ambrose, 2002; Cropanzano, Rupp, Mohler, & Schminke, 2001; Fortin, 2006; Nowakowski & Conlon, 2005).

The reviews of the organizational justice literature offer some wisdom for justice researchers in the legal context. First, as Ambrose (2002) noted in the organizational context, legal psychologists must recognize that we are asking two distinct research questions and we should treat them as such, without ignoring their interdependence. The first question is what factors influence justice judgments. In other words, we must identify a measurement model of justice that works in the legal context. The results of this dissertation suggest that the organizational model of justice will translate nicely, but we have to do more research focused specifically on answering the measurement question in order to confidently draw that conclusion. While the measurement question was taken up in early legal psychology justice research (e.g., Leventhal, 1980; Tyler, 1988, 1989), it is rarely explicitly done so today. The one exception is the four-component model introduced by Blader and Tyler (2003), which the authors argued was appropriate for both organizational and legal contexts. However, that model was only tested in the organizational context, and the authors themselves have not adopted that measurement model in their subsequent research (Blader, 2007a; Blader & Tyler, 2009, Davis-Lipman, Tyler, & Andersen, 2007; Tyler & De Cremer, 2005).

On the topic of measurement, distributive justice played a strong role in participants' evaluations of the decision in this child neglect case. Distributive justice judgments most consistently and most strongly predicted the justice outcomes in this design. Historically, justice researchers have played down the importance of distributive justice, arguing that procedural justice is a far more potent influence on outcomes related

to the decision (Bettencourt, Brown, & MacKenzie, 2005; Tyler, 1984, 2006; Tyler & Blader, 2000; Tyler, Casper, & Fisher, 1989; Tyler, Rasinski, & McGraw, 1985). The results here suggest that distributive justice does play a prominent role in people's understanding of justice and related outcomes. The advantage of the OMJ, especially as compared to the GEM, is that it places distributive justice on equal status with other justice judgments; thus, it recognizes that a complete understanding of justice requires acknowledging the role of distributive justice.

The second issue that legal researchers need to address is identifying the specific outcomes of justice judgments. Here, the legal psychology field, again, lags behind organizational justice. In fact, Nowakowski and Conlon (2005) observe that the organizational justice field has begun moving beyond this simple question to exploring moderator effects. Researchers in legal psychology have not made a full move to studying moderator effects, because the field is not in a position to do so yet. Although legal psychologists have been studying justice concepts for just as long as organizational researchers, they have not come as far in establishing the foundational connection between justice judgments and behavioral outcomes. Most of the legal psychological research stops short of measuring behavioral outcomes in favor of measuring short-term satisfaction with the decision, stated intentions to comply with the law, and sometimes respect for the law (e..g, Gover, Brank, & MacDonald, 2007; Maeder & Wiener, 2008; Wells, 2007), although there are some important exceptions (Reisig, Bratton, & Gertz, 2007; Reisig & Mesko, 2009; Tyler, Sherman, Strang, Barnes, & Woods, 2007).

While these are all important outcomes, and indeed, the ones I tested in this study, the presumption of the field is that positive justice judgments will directly contribute to

positive behavioral outcomes. For example, the group engagement model (Tyler & Blader, 2003) explicitly states that people who perceive fair treatment will more willingly engaged in voluntary and mandatory group behaviors. Unfortunately, the group engagement model received little support in this sample, suggesting that social identity may not be the best explanation for the relationship between justice judgments and outcomes in all legal contexts. In fact, Tyler and colleagues (Blader & Tyler, 2003, 2009; Tyler & Blader, 2003) have tested the group engagement model primarily in the organizational context. While the authors argue this model applies in the legal context, no other researchers outside the current study have tested it in that context. There are certainly reasons to expect that there are differences between these two contexts that would render the processes underlying procedural justice judgments very different. For example, people are free to work for organizations, while parents are forced into the child protection system.

Clearly, empirically testing behavioral outcomes of justice judgments is a far more difficult proposition in legal settings than in organizational ones. In the work place, employees are easy to identify and easier to maintain in the sample along multiple time points. In contrast, the logistics of tracking parties to a legal decision for multiple time points is cumbersome, but doing so will be valuable to the field. If we cannot establish that perceptions of justice do have an impact on people's behavioral engagement in the law, then we have little reason to study perceptions of fairness in the legal context at all. *Legal Implications* 

The results of this dissertation have three broad implications for the law, both generally and in the child protection context. First, due process did matter to participants.

In this study, procedural treatment was a direct manipulation of a key due process protection—voice, or opportunity to present one's side of the story. Participants who read the scenario in which the judge afforded the mother this right rated higher procedural justice. In addition, higher procedural justice ratings predicted participants' belief that the mother was more likely to comply with the law, that the judge was better at his job, and overall decision satisfaction. The fact that procedural justice had such a strong influence on justice outcomes lends support to the argument that due process protections do promote a general sense of fairness and increased acceptance of legal decisions.

At this juncture, it is worth reiterating that the OMJ model did a good job of accounting for participants' justice judgments. In other words, participants did distinguish between formal procedural treatment and informal interactional treatment. From a legal perspective, this finding suggests that, in the legal context, people understand these different kinds of treatment as separate but related constructs. This is consistent with the law in that the law provides a number of procedural protections, but does very little to provide legal parties protection from interpersonal treatment. From a research perspective, this finding supports the argument that the OMJ does translate well into a legal context and has some benefits over models that combine and confound procedural and interactional treatment.

Second, predictions of legal compliance came from both procedural and distributive justice perceptions. That is to say that with a simultaneous test of all justice judgments, only formal procedural treatment and distributive treatment predicted participants' ratings of the mother's likelihood to comply with the case plan. This finding is consistent with the organizational literature, which predicts that procedural treatment

will be related to institutional support, including rule obedience (Colquitt, 2001; Cropanzano, Prehar, & Chen, 2002; Roch & Shanock, 2006). However, and importantly, this finding is contrary to much of the rhetoric of procedural justice researchers in the legal context, who arguably overemphasize the import of interactional treatment as a powerful force in facilitating compliance with the law and minimize objective, distributive justice (Gonzalez & Tyler, 2008; Tyler, 2006).

As Fox (1999) argued, it could be that this increased emphasis on interactional justice in the law has distracted us from remembering that procedural and distributive outcomes are the foundation on which a truly just legal system are built. Without due process and generally fair outcomes, interactional justice means little and maybe nothing at all. Along these lines, distributive justice judgments were a strong influence on participants' ratings of all justice-related outcomes. In fact, overall, distributive justice was the most consistent predictor of justice outcomes. Thus, in the child protection context, it appears that participants' perceptions that the removal was fair were more powerful than their judgments about how fairly the court treated the mother during the hearing.

Again, the fact that participants were outcome-focused is contrary to what procedural justice researchers generally find, but it is important to note that most procedural justice researchers do not study the topic within a context with so much consequence. In the child protection context, parents face the temporary loss of custody of their children and the knowledge that this loss may become permanent. With an outcome this severe at stake, it is easy to imagine that issues of distributive justice might overshadow any concerns about procedural and, especially, interactional justice that

might otherwise be present. This line of reasoning begs the question whether there is a point at which the outcome at stake is so personally important that concern over it dominates the other justice evaluations that are typically involved during a decision-making procedure? If there is, then one can easily imagine that point to be present quite often in the legal context, suggesting that procedural and interactional justice might not play as strong a role across the legal board as justice researchers have argued. In order to understand truly the boundaries between procedural, interactional, and distributive justice, legal psychologists must begin to test the theory in the field.

Third, parents and judges are likely to perceive and evaluate the legal process quite differently. In this study, assigned judges placed a bigger premium on distributive justice than assigned parents, especially when evaluating the procedural and interactional justice in the scenario. In other words, assigned judges' perceptions of distributive justice impacted their evaluations of procedural and interactional justice, suggesting that distributive justice judgments had some sort of primacy over the other justice judgments. On the other hand, distributive justice influenced parents less when they made their other justice evaluations, although (as noted in the prior paragraph), assigned parents were still quite influenced by distributive justice in general.

The fact that parents and judges are likely to perceive the process differently has important implications for the practice of the law. If judges are not as attuned to issues related to procedural and interpersonal treatment, then they will be less likely to modify their behavior to promote procedural and interactional justice. Procedural justice, to a great extent, is commanded by due process laws; however, interactional treatment is at the discretion of individual judges. The child protection context, which is often

characterized by more informal hearings, is one in which judges could have great freedom to practice communication techniques that parents' might perceive as more just, including speaking in plain English, clearly explaining decisions, and always being respectful toward parents.

The results of this study suggested that when people perceive the interactional treatment as more positive, they are more likely to evaluate the judge as competent and they are more likely to respects the law. These outcomes might have important effects on parents' engagement in the legal process. In fact, it is possible that respect for the judge and a sense of personal respect might be better indicators of parents' progress toward reunification than complying with the case plan. As Brank et al. (2001) noted, compliance with a case plan is only a good indicator that the parent will be able to maintain the child's safety and wellbeing when the case plan is narrowly tailored to the parents' needs. In reality, many case plans are written broadly and compliance is measured in terms of attendance at meetings rather than improvement in skills or reduction of problem behaviors. In the future, researchers should identify specific indicators of improved parenting and establish that justice judgments conform to those indicators.

#### Limitations and Future Research

I identified many of the limitations of this study earlier in this discussion, so I will only briefly address them here. Perhaps the biggest weakness was that this was a laboratory study, meaning that the design was artificial and weak in external validity. Participants read a written case file and description of what happened in a fictional court proceeding. People attending actual court hearings would likely react to the situation

differently, probably more strongly than participants in this study. Beyond the difference between the written word and actual presence in a hearing, there is also the difference between what was at stake for participants in this study and what is truly at stake for participants in a child protection hearing. Judges are burdened with the responsibility of making decisions that greatly impact the lives of children and families, including keeping children outside the custody of their parents. Real judges, as opposed to participants assigned as judges, would have the benefit of their own experience, as well as the pressures of a real docket. Parents face the possibility of long-term separation from their children, let alone the barriers of low socioeconomic status, mental health, and substance abuse problems, which are common among parents in the child protection system (Forrester & Harwin, 2006; Sidebotham & Heron, 2006; Stromwall, Larson, Nieri, Holley, Topping, Castillo et al., 2008). Real parents, as opposed to participants assigned as parents, would potentially be much more affected by and much more aware of variations in procedural and interpersonal treatment.

In terms of internal validity, the procedural justice manipulation was somewhat weak compared to the other manipulations. In this study, the manipulation of procedural treatment either allowed or refused the mother an opportunity to present her side of the story in court. The vignette made it clear that the judge had no discretion in granting or denying the mother's request to speak, and it is true that the majority of participants did understand that. Nonetheless, compared to the other manipulations, a large minority did not correctly understand the parameters of the procedural treatment manipulation. The weakness of the manipulation could explain why procedural justice was less strongly related to outcomes than expected. However, it is important to consider the legal context.

While some participants did not understand this manipulation, the question remains whether parents in a real child protection proceeding are able to make that distinction. Unlike in the organizational context, the distinction between institutional treatment and interpersonal treatment blur easily because the public has less familiarity with rules of law than with the norms in the workplace. Future research should explore whether understanding of the law affects people's evaluations of procedural and interpersonal treatment.

The procedural justice manipulation was also somewhat artificial in that, by law, parents' have the constitutional right to testify in their defense, at least the time of adjudication (Jones, 2006). Nonetheless, by beginning this line of research with a basic due process right, I was able to confirm that the refusal of due process rights, in fact, does reduce procedural justice judgments. In the future, researchers should begin to explore the boundaries of due process-what rights are most important to parents involved in the child protection system?

The interactional treatment manipulation was quite effective in altering perceptions of interactional justice, but there is one weakness in the design. I manipulated interpersonal and informational treatment concurrently, rather than orthogonally, thus weakening conclusions based on the distinction between interpersonal and informational justice from this sample. Even so, participants' ratings of interpersonal and informational justice were sufficiently distinct to be able to test the constructs separately in the analyses. In the future, I would like to begin exploring the differential effects of interpersonal and informational justice in the child protection context with stronger research design. Field research suggests that both interpersonal and informational

treatment are relevant to parents' reactions to the child protection system, but that information might be more important (Drake, 1994; Dumbrill, 2006; Kapp & Propp. 2002; Thoburn, Lewis, & Shemmings, 1995).

In all, the dependent measures were coherent and proved reliable. I adopted them almost entirely from prior research, largely from Colquitt (2001). Because they were adapted from Colquitt's work, this study provides a solid replication of many of his core hypotheses. Nevertheless, researchers will need to test the relationships with alternative measures of justice judgments and outcomes to be fully confident in this model. Testing different outcomes is especially important. Here, I tested participants' perceptions of the mother in the scenario. Future research should extend this by testing outcomes that are more personally relevant to the evaluator. Future research should also test behavioral, not just attitudinal, outcomes. Finally, in the future, researchers should test additional outcomes, which they can theoretically derive from the model. For example, if procedural treatment is perceived as institutionally linked, and therefore affects institutionally relevant outcomes, then increased respect for the institution should be an outcome of positive procedural treatment. Tyler (2006) has shown a link between procedural justice and perceived legitimacy of authority and respect for the law, but all of his work uses a much broader definition of procedural justice, one that includes an interactional component. To my knowledge, Tyler has not evaluated whether this more narrow definition of procedural treatment also predicts respect for the law.

Ultimately, this study was a potential first in a program of research that explores the utility of the organizational model of justice in the legal context, in particular, the role that justice judgments play in influencing parental compliance with case plans. As that, it

served its purpose. The results generally supported the organizational model of justice in both its measurement and its structure, although not as strongly in its structure. Future research needs to replicate and extend these findings in the child protection context, in addition to other legal contexts. It will be important to enter the courtroom and beginning talking to parties to child protection cases. In terms of procedural and interactional treatment, future studies should combine courtroom observations with interviews of parents to get a more complete sense of differences between objective and perceived treatment, and how treatment impacts parents' willingness to engage in the process.

In addition, it will be important to explore other legal factors. Parents interact with their caseworkers and their attorneys more often than with judges, and their caseworkers are in a position of authority. It is likely that parents' interactions with their caseworkers also involve elements of fair or unfair treatment, and that this treatment is even more powerful on parents' future behavior in the case. In fact, many researchers have identified the quality of the caseworker-parent relationship as an important influence on parents' willingness to cooperate with child protective services (Drake, 1994; Dumbrill, 1996; Kapp & Propp, 2002; Thoburn, Lewis, & Shemmings, 1995). Importing a procedural justice framework to this body of research might go a long way in helping to introduce some coherence to this literature, as well as identify potential gateways and barriers to parental compliance.

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# Appendix A. Role Induction Materials

## Judge Induction

This study is about a juvenile court case. In juvenile court, judges have to hear a variety of cases, including cases involving child abuse and neglect. When a parent has been accused of abusing or neglecting their child, it is the judge's job to make a range of decisions. For example, juvenile court judges have to hear descriptions of the child's living circumstances and decide whether it was reasonable that the caseworker removed the child from home. Judges also have to decide when and whether it is safe for the child to return home and, in severe cases, whether a parent's right to their child should be terminated altogether. In general, juvenile court judges have to make decisions about what is in the child's best interests.

Imagine that you are a judge in a juvenile court, where you frequently hear and decide child abuse cases. Please take the next few minutes to imagine what it would be like to be a juvenile court judge, and then answer the following questions.

Would it be easy or difficult for you to be a juvenile court judge? Please write a paragraph explaining your answer.
What kinds of information would you need to make good decisions? Please write a paragraph explaining your answer.
How would it feel to be a juvenile court judge hearing child abuse and neglect cases? Please write a paragraph explaining your answer.

Next, you will read a court case file describing a child neglect case based upon one that recently came before a juvenile court. The identifying information has been changed, but the core facts are similar to those in the original case.

Please read the file carefully, **thinking about it from the perspective of a juvenile court judge**, then answer a series of questions about the case.

#### Parent Induction

Imagine that you are a single parent of a 10-year-old daughter. As a single parent, you have to take care of your child. For example, you have to make sure that your child has food to eat, clothes to wear, and a safe place to live. In general, you have to do your best to make sure that your child's needs and interests are met. Please take the next few minutes to imagine what it would be like to be accused of neglecting your child, and have your child removed from your home. Within two days of your child's removal, you must attend a hearing before a judge, who is to decide whether the child should temporarily remain outside of your home.

What would it be like to a parent in this situation? Please write a paragraph explaining your answer.
How would you feel about attending this hearing? Please write a paragraph explaining your answer.
What would you expect to happen at this hearing? Please write a paragraph explaining your answer.

Next, you will read a court case file describing a child neglect case based upon one that recently came before a juvenile court. I have changed the identifying information, but the core facts are similar to those in the original case.

Please read the file carefully, **thinking about it from the perspective of a parent**, and then answer a series of questions about the case.

# Appendix B. Official Juvenile Petition

## Severe Neglect Version

Below is the description of the purpose of the petition, followed by the petition's text. Within the petition, only the italicized text was manipulated for this study. Participants did not see the italics.

#### OFFICIAL JUVENILE PETITION

The county attorney files the official petition. The purpose of the petition is to describe the nature of the situation that led to removing Hailey from her mother's home and bringing the case before the court.

# 

COMES NOW, Sally Marlon, Deputy County Attorney and shows to the Court:

That said child is under the age of eighteen years, said child's date of birth being January 4, 1999.

COUNT I: That the above-named minor child is in a situation dangerous to life or limb or injurious to the health or morals of said child in that:

- A. On or about January 13, 2009, the child was removed from her home when it was found in a dirty condition and she was found alone with no adult supervision, to wit:
  - 1. A toilet in one bathroom was broken and the child continued to use it. The toilet was filled with feces and urine and feces were on the floor.
  - 2. The house had clothes, food containers, and debris on the floor everywhere. A strong smell of urine permeated the upstairs of the home.
  - 3. Piles of rat feces were scattered through the dresser drawers and on the floor of the home.

WHEREFORE, your petitioner prays that summons issue and be served upon the abovenamed child, the child's mother, the person having custody and control of said child, requiring them to appear personally before this Court at the time and place stated in said summons and that the Court make such orders concerning the care, custody and control of said child as deemed appropriate in the premises.

## Moderate Neglect Version

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## OFFICIAL JUVENILE PETITION

The county attorney files the official petition. The purpose of the petition is to describe the nature of the situation that led to removing Hailey from her mother's home and bringing the case before the court.

IN THE SEPARATE ILIVENILE COURT

IN THE INTEREST OF	)	DOC. 9128 NO. 23	
HAILEY SMITH	)		
Child Under Eighteen Years of A	) Age )	JUVENILE PETITION	

COMES NOW, Sally Marlon, Deputy County Attorney and shows to the Court:

That said child is under the age of eighteen years, said child's date of birth being January 4, 1999.

COUNT I: That the above-named minor child is in a situation dangerous to life or limb or injurious to the health or morals of said child in that:

- A. On or about January 13, 2009, the child was removed from her home when it was found in a dirty condition and she was found alone with no adult supervision, to wit:
  - 1. The minor child was found sitting in her home watching television with no adult supervision.
  - 2. The minor child explained that her mother worked until 5pm, and that she always arrived home from school at 4pm and watched television until her mom came home.
  - 3. The kitchen sink, table, and counters were full of dirty dishes and pans and there was no clean food preparation area.

WHEREFORE, your petitioner prays that summons issue and be served upon the abovenamed child, the child's mother, the person having custody and control of said child, requiring them to appear personally before this Court at the time and place stated in said summons and that the Court make such orders concerning the care, custody and control of said child as deemed appropriate in the premises.

Sally Marlon, petitioner

# Appendix C. Official Caseworker Court Report

The caseworker files the court report before the protective custody hearing. The purpose of the court report is for the caseworker to make recommendations to the judge about what to order for the family.

# Nebraska Health and Human Services System

## COURT REPORT

Date of Preparation: 1-15-2009

## **FAMILY INFORMATION**

Parent: Sarah Smith

Child:

Name: Hailey Smith Birthdate: 1-4-1999

Age: 10 years

Case Manager: Becky Cassidy

# **COURT RECOMMENDATIONS**

It is recommended the court order:

- That Hailey remain in the temporary legal and physical custody of the Nebraska Department of Health and Human Services.
- 2. That Ms. Smith, the mother, participate in a parenting assessment and class.
- 3. That Ms. Smith, the mother, maintains a sanitary and safe home environment for Hailey.
- 4. That Ms. Smith, the mother, ensures that Hailey is being properly supervised at all times.

# Appendix D. Protective Custody Hearing Summary

Unfair Procedural Treatment/Unfair Interactional Treatment/Severe Neglect Version

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#### PROTECTIVE CUSTODY HEARING SUMMARY

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The judge called the hearing to order by banging his gavel, and announcing, "This is the protective custody hearing in the matter of Hailey Smith. Please note for the record that Hailey's mother, Ms. Smith, is here with her attorney, and the county attorney and caseworker in the case are also present. Let's begin."

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"First, the toilet in the home was broken, but continued to be used. The toilet had urine and feces in it, and there were feces on the floor of the bathroom." The judge then rudely added, "That is disgusting, Ms. Smith. I am absolutely appalled that you would keep your home in such a filthy condition, especially with your daughter also living there."

"Second, the house was messy and dirty. There were clothes, food containers, and trash scattered on the floor throughout the home." The judge continued in a hostile tone, "I just don't understand how you could live like that."

"Third, there were piles of rat feces in your home." At this, the judge got irate. "I hope you're as disgusted with yourself as I am, Ms. Smith!"

After reading the petition, the judge asked the County Attorney and caseworker if they had anything to add. They both declined.

The judge then asked Ms. Smith's attorney if she had anything to say on behalf of her client. The attorney said, "Yes, your honor. I have a request on behalf of my client. Your honor, Ms. Smith is a single parent of a ten-year-old girl who is doing the best she can with limited resources. If it pleases the court, Ms. Smith would like the opportunity to explain the situation from her own perspective."

The judge answered the attorney, "As you know, the law prevents me from allowing Ms. Smith to speak in my courtroom at this stage of the case. The purpose of the protective custody hearing is merely to decide on the child's placement, and parents are not allowed to provide information at this hearing. Ms. Smith cannot speak to the court in the manner you requested. I cannot hear her testimony now."

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The judge turned to the mother and said, "Ms. Smith, this is called the protective custody hearing. I want to explain to you why we are here. As you know, Hailey was living with you up until a few days ago, when the caseworker took her out of your custody. The purpose of today's hearing is for me to hear about why Hailey was removed and for me to decide if Hailey should remain out of your home for now or if she is safe to be returned to your care while the case continues. Do you understand?"

"Good," said the judge, smiling.

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The judge turned to Ms. Smith, and said rather gently, "Ms. Smith, this means that I have ordered that Hailey live outside of your home for the time being. I have made this decision based on what I believe to be in Hailey's best interests. Based on what I have read in this petition, I believe that you have not taken appropriate care of Hailey, and that she is not safe in your home. Ms. Smith, do you have any questions about what has happened here today?"

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The mother then described her side of the story to the judge.

After a moment, the judge addressed the entire court: "Do either of the parties have any other matters?" Both lawyers shook their heads. "Very well, then it is the decision of this court that the child remains in the temporary legal and physical custody of Health and Human Services."

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"Second, Hailey is left home alone for an hour each day five days a week." The judge continued in a hostile tone, "I just don't understand how you do that."

"Third, the kitchen was dirty, and dirty dishes were also on the kitchen counter and table." At this, the judge got irate. "I hope you're as disgusted with yourself as I am, Ms. Smith!"

After reading the petition, the judge asked the County Attorney and caseworker if they had anything to add. They both declined.

The judge then asked Ms. Smith's attorney if she had anything to say on behalf of her client. The attorney said, "Yes, your honor. I have a request on behalf of my client. Your honor, Ms. Smith is a single parent of a ten-year-old girl who is doing the best she can with limited resources. If it pleases the court, Ms. Smith would like the opportunity to explain the situation from her own perspective."

The judge answered the attorney, "As you know, the law requires that I allow Ms. Smith to speak in my courtroom at this stage of the case. The purpose of the protective custody hearing is to decide on the child's placement, and parents are allowed to provide information at this hearing. Ms. Smith has a right to provide her own perspective, so that I may consider it in deciding Hailey's placement. I can hear her testimony now."

The mother then described her side of the story to the judge.

After a moment, the judge addressed the entire court: "Do either of the parties have any other matters?" Both lawyers shook their heads. "Very well, then it is the decision of this court that the child remains in the temporary legal and physical custody of Health and Human Services."

Fair Procedural Treatment/Fair Interactional Treatment/Moderate Neglect Version

Below is the description of the purpose of the hearing summary, followed by the summary's text. Within the summary, only the italicized text was manipulated for this study. Participants did not see the italics.

### PROTECTIVE CUSTODY HEARING SUMMARY

The protective custody hearing is the first hearing before the court after the child welfare agency or the police have removed the child from the home. The primary purpose of the hearing is for the judge to decide whether the removal was legally appropriate, and whether the agency can safely return the child home while the case goes through the court process.

## PROTECTIVE CUSTODY HEARING SUMMARY

On January 20, 2009, Judge Jones held the protective custody hearing for Hailey Smith's case. Hailey's mother, Sarah Smith, attended the hearing, along with her attorney. Also in attendance was the county attorney who filed the original petition and the caseworker responsible for removing Hailey from her mother's home.

The judge called the hearing to order by banging his gavel, and announcing, "This is the protective custody hearing in the matter of Hailey Smith. Please note for the record that Hailey's mother, Ms. Smith, is here with her attorney, and the county attorney and caseworker in the case are also present. Let's begin."

The judge turned to the mother and said, "Ms. Smith, this is called the protective custody hearing. I want to explain to you why we are here. As you know, Hailey was living with you up until a few days ago, when the caseworker took her out of your custody. The purpose of today's hearing is for me to hear about why Hailey was removed and for me to decide if Hailey should remain out of your home for now or if she is safe to be returned to your care while the case continues. Do you understand?"

"Good," said the judge, smiling

The judge addressed the courtroom, "The county attorney filed a petition in the matter of Hailey Smith, describing the conditions at her home that led to Hailey's removal. For the record, I will review the allegations." The judge took the petition, and skimmed it. While reading, the judge appeared interested and occasionally glanced up at Ms. Smith. After a

moment, the judge looked at the mother and said, "Ms. Smith, there are three allegations in this petition.

"First, Hailey was found home alone without adult supervision."

"Second, Hailey is left home alone for an hour each day five days a week."

"Third, the kitchen was dirty, and dirty dishes were also on the kitchen counter and table."

After reading the petition, the judge asked the County Attorney and caseworker if they had anything to add. They both declined.

The judge then asked Ms. Smith's attorney if she had anything to say on behalf of her client. The attorney said, "Yes, your honor. I have a request on behalf of my client. Your honor, Ms. Smith is a single parent of a ten-year-old girl who is doing the best she can with limited resources. If it pleases the court, Ms. Smith would like the opportunity to explain the situation from her own perspective."

The judge answered the attorney, "As you know, the law requires that I allow Ms. Smith to speak in my courtroom at this stage of the case. The purpose of the protective custody hearing is to decide on the child's placement, and parents are allowed to provide information at this hearing. Ms. Smith has a right to provide her own perspective, so that I may consider it in deciding Hailey's placement. I can hear her testimony now."

The mother then described her side of the story to the judge.

After a moment, the judge addressed the entire court: "Do either of the parties have any other matters?" Both lawyers shook their heads. "Very well, then it is the decision of this court that the child remains in the temporary legal and physical custody of Health and Human Services."

The judge turned to Ms. Smith, and said rather gently, "Ms. Smith, this means that I have ordered that Hailey live outside of your home for the time being. I have made this decision based on what I believe to be in Hailey's best interests. Based on what I have read in this petition, I believe that you have not taken appropriate care of Hailey, and that she is not safe in your home. Ms. Smith, do you have any questions about what has happened here today?"

# Appendix E. Protective Custody Hearing Findings And Order

This document is the judge's official order at the end of the protective custody hearing. It formalizes the decision the judge made during the hearing, including whether the child should remain out of her mother's home or return home pending the next hearing.

IN THE SEDADATE II IVENII E COLIDT

111 111	IL SEFAKA I	TE JOVENILE COOKT
IN THE INTEREST OF	)	DOC. 9128 NO. 23
HAILEY SMITH	)	
Child Under Eighteen Years of A	) .ge )	FINDINGS AND ORDER

Now on the 20<sup>th</sup> day of January, 2004, the above-captioned matter came on for Protective Custody hearing before the undersigned Judge of the Separate Juvenile Court upon a Petition filed herein January 15, 2009. Appearing were Sarah Smith, the child's mother, with counsel, Colleen Wilson; Becky Cassidy, Department of Health and Human Services; and Sally Marlon, Deputy County Attorney.

Being fully advised in the premises, the Court finds:

That further detention of the above-named child is a matter of immediate and urgent necessity for the protection of said child.

That continued placement in the residence is contrary to the child's welfare because the house was found in a dirty condition and the child was found alone without adult supervision.

IT IS THEREFORE ORDERED that the child herein be and is hereby placed in the temporary custody of the Department of Health and Human Services for placement, pending further proceedings herein.

Signed and dates this 15<sup>th</sup> date of January, 2009.

BY THE COURT:

JUDGE JONES, Separate Juvenile Court

# Appendix F. Measures

Below are all measures that I asked participants to complete. Here, all items are grouped according to construct with the construct clearly identified, but participants did not see the construct labels.

# Manipulation Checks

Directions: Below is a series of statements about the case file that you just read. Some

<ul> <li>True/False. For these, please mark whether you think the statement is True or F</li> <li>Role induction</li> <li>1. Before you read the case, I asked you to evaluate it from one of the follownerspectives. Please select the perspective you were assigned:</li> </ul>								
1. Before you read the case, I asked you to evaluate it from one of the follow								
perspectives. Please select the perspective you were assigned:	ving							
perspectives. Please select the perspective you were assigned:								
□ County Attorney								
☐ Parent's Attorney								
□ Judge								
□ Parent								
Neglect severity								
1. This was a serious case of neglect.								
Not serious at all very serious								
1 2 3 4 5 6 7								
2. Hailey was living in a harmful environment with her mother.								
Not harmful at all very harmful								
1 2 3 4 5 6 7								
3. Hailey was living in a dirty home.								
Not dirty at all very dirty								
1 2 3 4 5 6 7								
4. Hailey was home alone when she was removed and taken into custody.	Hailey was home alone when she was removed and taken into custody.							
□ True								
□ False								
Procedural Justice								
Procedural Justice 1. The mother was given an opportunity to present her story at the hearing.								
1. The mother was given an opportunity to present her story at the hearing.								

2.	The judge had no choice about whether to let the mother present her story at the hearing.  □ True □ False				
Intera	actional Justice				
1.	The judge expressed disapproval of the mother.  No disapproval at all  1 2 3 4 5 6 7  A lot of disapproval				
2.	The judge explained his decision to the mother.  No explanation at all  A lot of explanation  1 2 3 4 5 6 7				
Decisi	ion				
1.	The judge returned Hailey to her mother's home at the end of the hearing.  □ True □ False				
	Justice Perceptions				
proced	ext set of questions refers to your perceptions of the Protective Custody Hearing dures and outcome. Please read each question and indicate the extent to which the at of each question happened or did not happen.				
Proce	dural Justice				
	ollowing items refer to the process used during the hearing to arrive at the decision.				
_	To what extent:  1. Was the mother able to express her views and feelings during the hearing procedure?				
2.	Did the mother have influence over the decision being made during the hearing procedure?				
3.					
4.	Was the hearing procedure based on accurate information?				
5.	Did the hearing procedure uphold ethical and moral standards?				
6.	6. Was the process used to make the decision during the hearing fair? (global)				

# **Interactional Justice/Interpersonal**

The following items refer to the judge at the hearing. To what extent:

- 1. Did the judge treat the mother in a polite manner?
- 2. Did the judge treat the mother with dignity?
- 3. Did the judge treat the mother with respect?
- 4. Did the judge refrain from improper remarks or comments?

## Interactional Justice/Informational

The following items refer to the judge at the hearing. To what extent:

- 1. Was the judge candid in his communications with the mother?
- 2. Did the judge explain his decision thoroughly?
- 3. Did the judge explain the procedures thoroughly?
- 4. Were the judge's explanations about the hearing procedures and decision reasonable?
- 5. Did the judge treat the mother fairly during the hearing? (global interactional)

## **Distributive Justice**

The following items refer to the outcome of the hearing. In other words, the following items refer to the decision made at the end of hearing. To what extent:

- 1. Did the judge's decision reflect what the mother deserved?
- 2. Was the judge's decision appropriate given the situation?
- 3. Was the judge's decision justified given what the mother had done?
- 4. Was the hearing outcome fair? (global)

### **Justice Outcomes**

For the next set of statements, think about the outcome of this hearing and how you think the case will ultimately end. Read each statement and indicate the extent to which you disagree or agree.

Disagree completely Agree completely 1 2 3 4 5 6 7

# **Decision Satisfaction and Approval**

How much do you agree with these items about the judge's decision?

- 1. The judge's decision was acceptable.
- 2. I am satisfied with the judge's decision.

- 3. The mother should be satisfied with the judge's decision.
- 4. I agreed with the judge's decision at the end of the hearing.

## **Leader Evaluation**

How much do you agree with these items about the judge?

- 1. The judge was a good judge.
- 2. I really liked the judge.
- 3. The judge did a good job at this hearing.
- 4. I respect this judge.

## **Legal Compliance**

How much do you agree with these statements about the future of the case?

- 1. The mother will try to follow the rules of her case plan.
- 2. The mother will attend her next hearing on time.
- 3. The mother will follow the orders the judge gave her.
- 4. In the end, the mother will be reunited with her daughter.

# **Collective Esteem**

Same three items as Respect (below).

# **Identity Judgments**

Now, think about the mother in this case. Read these questions and indicate how much you disagree or agree with each statement.

Disagree completely Agree completely 1 2 3 4 5 6 7

## Respect

How much do you agree with these items about the mother?

- 1. If most people knew the mother well, they would respect her values. (respect)
- 2. If most people knew the mother well, they would think highly of her accomplishments. (respect)
- 3. If most people knew the mother well, they would approve of how she lives her life. (respect)

### **Pride**

How much do you agree with these items about the mother?

- 1. The mother is proud to think of herself as a parent.
- 2. When someone praises parents as a group, the mother feels that praise is a personal compliment to her.
- 3. The mother talks up being a parent to her friends.

## **Identity**

How much do you agree with these items about the mother?

- 1. Being a parent says a lot about who the mother is as a person.
- 2. When something goes wrong as a parent, the mother feels a personal responsibility to fix it.
- 3. Being a parent is important to the way the mother thinks of herself.
- 4. When someone from outside criticizes the mother's problems as a parent, it feels like a personal insult.

	Societal Costs and Benefits					
Disagree completely  Agree completely					Agree	
<i>Compi 1</i>	2 2	3	4	5	6	7

## **Respect for Parents' Rights**

How much do you disagree or agree with each of these statements?

- 1. In general, removal of children from their homes is an infringement on parents' rights.
- 2. In this case, removing the child from her mother's home was an infringement of her mother's rights.
- 3. In general, child protection court hearings infringe on parents' rights.
- 4. In this case, the child protection court hearing infringed on the mother's rights.

## Magnitude of Threat

How much do you disagree or agree with each of these statements?

- 1. Child neglect is a big problem in our society.
- 2. In this case, I am worried about the mother's behavior that led to the removal of her child from her home.
- 3. I am worried about the extent of child neglect in our society.
- 4. Child neglect is a big risk to children's safety and wellbeing.

- 5. In this case, the mother's behavior was a threat to Hailey's safety and wellbeing.
- 6. In cases like this, our society should be worried about the children involved.

## **Efficacy of the Intervention**

How much do you disagree or agree with each of these statements?

- 1. When child protective services intervenes, the risk of child neglect is effectively reduced.
- 2. Child protective services is an effective intervention system.
- 3. Removing children from their homes is a good strategy to prevent the harms of child neglect.
- 4. Court hearings are effective at reducing the risks and harms of child neglect.
- 5. Court hearings are effective at reducing the amount of child neglect in our society.

## Attitudes about Fairness of Child Removal

How much do you disagree or agree with each of these statements?

- 1. In this case, the way that the child was removed from her home was fair.
- 2. In this case, removing the child from her home was a fair response to the situation.
- 3. In general, we use fair procedures to remove children from their homes in this society.
- 4. I approve of the procedures our society uses to remove children from their homes.

## **Demographics**

These are the final questions. Please answer the following questions about yourlsef.

I.	What is your age (in years)?					
	years					
2.	Which gender do you identify with?					
	☐ Male					
	□ Female					
	□ Transgender					
	☐ Prefer not to say					
2	Which regist group do you most identify with?					
٥.	Which racial group do you most identify with?					
	□ Non-Hispanic White/European-American					
	□ Black/African-American American					

		Asi	spanic ian/Pac efer not	ific-Islander to say				
4.	Нс	w li	beral o	r conservativ	e are you?			
Ve	ry li	ibera	al				Very conservative	е
1		2		3	4	5	6 7	
5.		Ye No	S	children:	الدوالة والمراد		:6 h h:11	
		If yes: These questions should only be answered if you have children. If yo do not have children this page and were sent to this page, just scroll to the bottom and click "next."						
How many children do you have?								
	Please list the ages in years of each child. If you have more than five enter the ages of your five youngest children.						have more than five child	dren,
		Do you currently have full physical custody of all of your minor (nor children?  Yes  No  If no:						ılt)
			-		•		years) has it been since youstody, enter "never."	you
				Other paren Other relati Foster paren Other:	ve nt		ase explain briefly.	
			-		-	-	-	