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2020

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Peer reviewed|Thesis/dissertation

UNIVERSITY OF CALIFORNIA,
IRVINE

Understanding the Impact of Youth Engagement During the Plea Process

THESIS

submitted in partial satisfaction of the requirements
for the degree of

MASTER OF ARTS

in Social Ecology

by

Kirsten A. Domagalski

Thesis Committee:
Professor Jodi A. Quas, Chair
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2020

DEDICATION

To

My wonderful parents, brother, friends, and “weasels” for their enduring support through this project and through all the challenges presented this year. I am so incredibly blessed to have you all by my side-- I would not be here without you!

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ACKNOWLEDGEMENTS

I would like to acknowledge and thank my advisors, collaborators, and committee for their mentorship, guidance, and support in this project and in helping me grow into the social scientist that I have always aspired to be.

I would also like to thank and acknowledge the National Science Foundation. Support for this study was provided by NSF Grant: 1445689

ABSTRACT OF THE THESIS

Understanding the Impact of Youth Engagement During the Plea Process

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Master of Arts in Social Ecology

University of California, Irvine, 2020

Professor Jodi Quas, Chair

When processed through the juvenile justice system, the majority of youth must attend a plea hearing in which they admit guilt and accept consequences for their actions in exchange for a formerly negotiated, agreed upon outcome. Plea decisions must be made knowingly, voluntarily, and intelligently in order for a plea to be considered legally valid. Yet, little is known about juvenile's engagement during their plea hearings, and whether it facilitates their ability to make a valid plea decision. To investigate this, youth (N = 82) who had recently pled guilty were interviewed about their engagement during the plea hearing, their perceived and actual plea knowledge, attitudes surrounding their legal experiences, and a series of other relevant legal-system and demographic variables. Results revealed that youths' perceptions of their attorneys were positively associated both with youths' psychological and behavioral engagement during the plea hearing. Procedural justice attitudes also emerged as a positive predictor of behavioral engagement. Turning to youths' understanding of the plea, findings surprisingly revealed that measures of youths reported plea knowledge, and actual plea knowledge were not correlated. While most youth reported a decent understanding of the plea, performance on two separate measures of plea understanding were generally poor. Predictors of perceived and actual knowledge also diverged. Youth's psychological engagement, and perceptions of their attorney were both positively correlated with youth's perceived understanding while age, and behavioral engagement emerged as predictors of youth's actual plea knowledge. Taken together,

results suggest that youth's reports surrounding their plea knowledge may not always reflect their actual plea knowledge, and that behavioral engagement during the plea hearing as well as advances in age may help to facilitate the understanding necessary for youth to make a valid plea decision.

INTRODUCTION

Each year in the United States, nearly one million youth are suspected of committing a felony or misdemeanor offense and charged as defendants in the Juvenile Justice system (Hockenberry, 2019). There is widespread agreement that youth—like adults—need to be held accountable for their behavior. However there is also agreement, particularly among legal professionals, that youth’s unique developmental vulnerabilities require special accommodations to facilitate participation in their cases while still maintaining fair judicial practices (Burke, 2011; Cauffman & Steinberg, 2000; Grisso et al., 2003). One way of accommodating these youth is by involving or engaging them in their juvenile case. Theoretically, engagement should facilitate youth’s understanding of what is happening, what the evidence is against them, and what the consequences of the case are for the youth and possibly their family. Understanding, in turn, should help the youth make informed decisions.

Yet, the extent to which youth are engaged--and as a result have an adequate understanding of their case--is not clear. The purpose of the present research was to examine the links between youth engagement and legal knowledge in one particularly important type of hearing, in which youth have admitted guilt (commonly referred to as “pleading guilty”) and have given up some of their rights in favor of an agreed-upon outcome. Before describing the research, prior work on the benefits of youth engagement is reviewed, followed by work on methods of promoting that engagement. Finally, the potential associations between engagement and legal knowledge is described.

CHAPTER 1: Youth Engagement and Legal Knowledge

Youth Engagement

Youth engagement has been investigated across a wide range of contexts, including in schools, extracurricular activities, medical settings, and custody and foster placement decisions (Ambresin, Bennett, Patton, Sancu, & Sawyer, 2013; Jenkins, Zukin, & Andolina, 2003; Marks, 2000; Weisz, Wingrove, Beal, & Faith-Slaker, 2011). Although engagement has been conceptualized in slightly different manners depending on the context, indicators of engagement typically include both psychological and behavioral components (Appleton, Christenson, & Furlong, 2008; Dotterer & Lowe, 2011; Finn & Zimmer, 2012; Klem & Connell, 2004; Newmann, Wehlage, & Lamborn, 1992). Psychological components include tendencies such as paying attention, showing interest, being motivated to participate, and demonstrating investment (Finn & Zimmer, 2012; Pintrich & Schrauben, 1992; Steinberg, Brown, & Dornbusch, 1997). Behavioral components reflect similar processes, but are typically indexed by specific actions, such as asking questions to gain information or engaging in intense or prolonged interactions (Bronfenbrenner & Morris, 2006; Downer, Rimm-Kaufman, & Pianta, 2007; Marks, 2000).

Theoretically, there are a number of reasons why engagement is beneficial for youth. Psychological engagement, which includes youth being focused and attentive (i.e., psychologically engaged), should allow them to more deeply process important information (Fredricks et al., 2004). Motivation is often associated with and/or categorized as a component of psychological engagement (Appleton, Christenson, Kim, & Reschly, 2006), and has been linked to positive outcomes such as higher reading comprehension and time spent reading for leisure, even for educationally vulnerable populations, such as those for whom English is their second language (De Naeghel, Van Keer, Vansteenkiste, & Rosseel, 2012; Proctor, Daley, Louick,

Leider, & Gardner, 2014). For justice involved youth, self-reported motivation in treatment is associated with important shifts in behavior such as cessation of alcohol use (Clair et al., 2011).

Behavioral engagement, which is measured through indicators of youths' active involvement in their environment, has also been identified as beneficial for youth in many settings. Programs that encourage youth to help create material or content for public health initiatives, for instance, about preventing sexually transmitted diseases, often have higher success rates than do programs that are developed by adults without such input (Reed & Miller, 2014). These programs are believed to be tapping into important aspects of both psychological and behavioral engagement, encouraging youth to ask questions, discuss the importance of specific content with mentors, and to directly contribute to materials.

Regardless of which component is considered (i.e., psychological vs. behavioral), higher engagement is associated with positive outcomes (Klem & Connell, 2004). Engaged youth, for example, evidence improved academic achievement (Lamborn, Newmann, & Wehlage, 1992; Dotterer & Lowe; 2012; Reyes, Brackett, Rivers, White, & Salovey, 2012). Youth and adult clients who are more actively involved with their health care providers and engaged in important routine behaviors report greater adherence to the medical advice given to them and tend to benefit more from treatment regimens relative to less engaged clients (Bakken et al., 2000; Greening, Stoppelbein, Konishi, Jordan, & Moll, 2007; Lequerica, & Kortte, 2010). Finally, evidence suggests that children who attend and are engaged by the judge during placement hearings have more positive feelings about the process indicated by greater levels of trust in the judge, and higher comfort levels with case workers (Weisz, Wingrove, & Faith-Slaker, 2011).

In fact, associations between engagement and positive outcomes are common in many mental health and court-related settings, where professionals consider engagement essential for impactful treatment and/or beneficial resolutions (Clair et al., 2011; Hemphil, & Howell, 2000).

Youth in residential treatment who are engaged early in the process, reflected in both attitudes and behaviors, are more likely to achieve desired outcomes such as family trust, self-esteem, self-efficacy and attachment to school when compared to youth who are less engaged (Smith, Duffee, Steinke, Huang, & Larkin, 2008). Likewise, youth engaged in therapeutic treatment programs are likely to continue seeking, complying with, and remaining in treatment (Clair et al., 2011). Finally, both ongoing and retrospective studies of youth in foster care suggest that youth very much want to be involved in and knowledgeable about their case and the decisions (e.g., placement) (Block et al. 2010; Weisz, Wingrove, Beal, & Faith-Slaker, 2011). Involvement, though not identical to engagement, is likely related and may in fact rely on engagement, given that involvement means youth are able to provide input or be present and learn about the discussions in their case.

While evidence indicates that engagement is beneficial for youth, it also suggests that, across the aforementioned contexts, youth's actual engagement varies considerably. Some youth show very high levels of engagement (e.g., in academic settings), while others show little to none. Low engagement is particularly likely among low-income and otherwise vulnerable youth, such as those in need of mental health services (Ellis, Miller, Baldwin, & Abdi, 2011; Kim, Munson, & McKay, 2012), and those in foster care, although for the latter, the structure of the dependency process may impede their ability to be engaged, even when they express a desire to be (Weisz, Wingrove, Beal, Faith-Slaker, 2011).

In light of these trends and evidence regarding youth at the greatest risk for low engagement, it is likely that engagement may be low among juvenile defendants involved in delinquency cases. For one, many youth in the juvenile justice system come from low income households (Sickmund & Puzanchera, 2014) and an estimated 50-75% of juveniles who come into contact with the justice system have diagnosable mental health disorder (Underwood & Washington, 2016). As previously noted, these are both risk factors for low levels of engagement

in multiple settings. Second, the professionals who work with youth believe that youth are not engaged. In fact, the U.S. Supreme Court itself has noted that youth have difficulty participating in their own representation; (Graham v. Florida, 2010). This view has been confirmed in surveys of legal professionals: in a recent nationwide survey of attorneys, judges and prosecutors, respondents often reported that youth are not engaged in the plea process (Woestehoff, Redlich, Cathcart, & Quas, 2019). And third, even adult defendants report feeling removed from the plea decision-making process (Redlich & Summers, 2012). There is little reason to suspect that youth would feel differently, given that youth are “less likely than adults to work effectively with their lawyers to aid in their defense” (Graham v. Florida, p. 2032).

In combination, multiple areas of work suggest that that justice-involved youth are unlikely to be heavily engaged in their case. Such a possibility, though, has yet to receive direct empirical attention. Insight into youth’s own perceptions of their psychological feelings of investment, that is, psychological engagement, but also their behavioral engagement especially during specific hearings when engagement is crucial would be of considerable value. Such insight could reveal not only whether engagement is low, but perhaps which youth are at greatest risk for disengagement and what the consequences of that disengagement might be. **Predictors of**

Youth Engagement

Several characteristics in youth and in their legal experiences may be related to their engagement. Those of interest here include youth age, education, relationships with legal professionals, and attitudes toward those professionals and their case.

As age increases, youth’s capacity for engagement in their plea hearing may also increase. Broad work in developmental psychology has demonstrated that as youth transition from adolescence to young adulthood, they gain a more advanced ability to take perspective, improve in their evaluation of the long-term consequences of their actions and experiences, and

make more socially responsible decisions (Cauffman & Steinberg, 2000; Cauffman et al., 2010). With age, youth also demonstrate improvements in self-regulation and self-control (Steinberg et al., 2008). Such should contribute to greater capacity for engagement (Fredericks et al., 2004), for instance, as youth can direct their attention toward material that is important for their future, process that information more deeply with perspective, and avoid distractions. In legal settings, maturity is positively associated with male juvenile offenders' comprehension of Miranda warnings, and age is positively associated with juveniles' capacity to meaningfully participate in their trial (Colwell, Guy, McCoy, Fernandez, & Ross, 2005; Cooper, 1997). Such capacities and comprehension are consistent with the possibility that youth are focused on and attending to the information presented, often categorized in the existing literature as engagement.

Youth's relationship to legal professionals is also likely important for their engagement. In academic settings, youth's relationship to their teacher is believed to play a pivotal role in their engagement with their education (Reschly & Christenson, 2012). In fact, educational interventions aimed at improving youth engagement often focus on helping teachers improve mentoring so that youth are involved and interested (Cooper & Jacobs, 2011; Pianta, Hamre, & Allen, 2012). The assumption is that this involvement, which likely requires engagement, leads to deeper processing and hence understanding of academic material (Murray, 2009). Students' own feelings confirm these pathways. Youth report that feeling comfortable with, encouraged, and respected by their teachers is essential to their engagement, including both psychological aspects like motivation, and behavioral aspects like willingness to ask questions (Cook-Sather, 2007; Murray & Murry, 2003). Substantiating these reports, many scholars have observed a positive relationship between student teacher relationships and engagement (De Laet et al., 2015; Wang & Eccles, 2012). For example, a longitudinal study following adolescents from 7th to 11th grade revealed a unidirectional, positive relationship between adolescents' relationships

with their teachers and active behavioral engagement outcomes during learning activities in the classroom (Engels et al., 2016).

Similar patterns may emerge when considering youth's relationship with their attorney. Youth's attorneys are often their main advocate in the legal process (Henning, 2005; Viljoen, Klaver, & Roesch, 2005). These attorneys provide crucial information to youth about their case, their rights, and their options. Attorneys also likely heavily influence youths' decisions (just as attorneys heavily influence adults' decisions: Redlich, Bibas, Edkins, & Mason, 2017), perhaps by engaging youth in the case and what might be best given individual youth's circumstances. If youth feel supported by their attorney, they may be more motivated to pay attention to, listen to, and ask questions of their attorney. Thus, it is important to understand what youth genuinely think about their attorneys on a broader level, given the great potential for influence in their case.

Finally, beyond youth's feelings about their attorney, their general feelings about the justice system and their case may also be related to their engagement. General feelings toward the legal system are often conceptualized as falling into multiple overlapping but distinct constructs. Most noteworthy are procedural and distributive justice perceptions (Konovsky, Folger, & Cropanzano, 1987; Tyler & Lind, 2002). Distributive justice attitudes refer to individuals' feelings about the distribution of outcomes, whereas procedural justice concerns the perceived fairness of the decision-making procedures used surrounding said outcomes (Hauenstein, McGonigle, & Flinder, 2001). Theoretically, distributive justice perceptions are driven most heavily by concerns over resources, while perceptions of procedural justice are driven by relational concerns such as trust and respect (Tyler, 1994). Therefore it is not surprising that procedural justice attitudes are strongly related to individuals' feelings about opportunities to participate in or have a voice in legal processes and decisions (Cohen, 1985;

Solum, 2004) and often contribute to legal participants' general attitudes about the legitimacy of the court.

As follows, youth who feel the plea process is procedurally just may also view it as more legitimate and be more willing to engage in their hearings. While the literature on youth engagement and justice attitudes is scarce, evidence suggests that youth who have negative feelings about the legal process are less motivated to follow the law. For example, negative attitudes towards the justice system are generally associated with higher rates of recidivism (Cavanagh & Cauffman, 2015). In contrast, when youth in the legal system hold strong positive feelings about the fairness of the process, and when legal and law enforcement professionals act in ways that facilitate procedural justice beliefs, youth are less likely to recidivate (Wales, Hiday, & Ray, 2010). Perhaps youth who feel respected by authorities also feel like they can make a difference in their case, thereby leading them to engage with what is happening. In a plea hearing, youth are informed of their rights, including the consequences of the plea on those rights. They may be asked to sign forms indicating their understanding. Youth who feel that the process is fair, therefore, may be attentive, listen, and read forms more carefully. Whether more positive procedural justice attitudes lead youth to demonstrate higher levels of both psychological and behavioral engagement in the plea process specifically is a possibility in need of direct investigation.

Youth Legal Knowledge and Understanding

As mentioned, one reason why engagement is likely beneficial for youth is because youth who are engaged understand what is happening in their environment make informed decisions. In legal settings, understanding is a crucial and well-studied component of youth's experiences (Cooper, 1997; Redlich & Summers, 2012; Rogers, Hazelwood, Sewell, Shuman, & Blackwood, 2008; Zelle, Romaine & Goldstein, 2015). When arrested, youth are read or given their Miranda

rights, and asked if they understand. Youth must agree or waive their Miranda to be interrogated (Gault, 1967; Sessions & Bracey, 1982). In many states, youth also must be deemed competent to stand trial. This requires that defendants, including youth, have sound mental capacity, and demonstrate an *ability* to understand the legal process in order to take part. While laws vary by state, this process usually does not require a formal hearing in which competence is established; instead, statutes typically require that the minor's counsel or the court will express doubt if they believe the minor is not competent to stand trial (For more information on juvenile competency in each state, see: NCSL National Conference of State Legislatures, 2020). Likewise, when a defendant makes the decision to enter a guilty plea, the court is legally required to ensure that the defendant's decision was made knowingly, intelligently, and voluntarily with a factual basis of guilt before it is accepted (Boykins v. Alabama, 1969; Brady v. United States, 1963). Even though youth cannot legally plead guilty unless tried in adult court, they instead can only admit guilt, across both types of admissions there is typically explicit language in written forms indicating that youth are making a knowing, voluntary, and intelligent decision to plead (e.g: JV-618 Waiver of Rights; Redlich et al., 2015).

Considerable evidence indicates that youth have difficulty understanding many facets of the legal system, including the plea (Cooper, Wallin, Quas, & Lyon, 2010; Redlich & Shteynberg, 2016; Rogers et al., 2016; Viljoen, McLachlan, Wingrove, & Penner, 2010). To begin, both community and justice involved youth often lack certain markers of competency to stand trial or take a plea deal (Grisso et al., 2003). In a survey of youth in detention centers Grisso et al., 2003 found that many of them (who had already been deemed competent and sentenced) often lacked certain markers of competency such as the understanding, reasoning, and appreciation necessary to fully comprehend their rights, and courtroom proceedings more broadly. Furthermore, the "legalese" (defined as specialized vocabulary, complex sentence structure) is often difficult for those unfamiliar with the legal system to comprehend, even though such

terminology is common in written documents and in spoken courtroom conversations (Hartley, 2000; Redlich, 2016; Rogers et al., 2008). For example, Miranda warnings contain vocabulary consistent with a post-secondary education reading level (Greenfield, Dougherty, Jackson, Podboy, & Zimmerman, 2001). Yet, most defendants, including youth, read at a 6th grade level (Redlich, 2016).

Plea vocabulary is similarly complex. Kaban and Quinlan (2004), for example, noted that many youths in a study of delinquency cases in Massachusetts had a difficult time defining words and phrases commonly found on waiver of rights and tender of plea forms. In this study, words and phrases were pulled from Massachusetts tender-of-plea form and observed colloquies were given to youth who were previously arraigned, but never adjudicated to define. On average, youth understood less than 20% of the terms, and most youth did not understand the majority of the terms. Knowledge, therefore, is significantly hampered when any defendant, including a youth, fails to understand the terminology and language structure, either when presented verbally or in written form (e.g.; Blackwood 2009; Redlich & Bonventre, 2015; Redlich, 2016).

In light of many youth's difficulties understanding many facets of their case, particularly the plea, an important question concerns whether engagement is related to such understanding. During a plea hearing, judges should determine the validity of the plea through some kind of record, such as an oral colloquy (Boykin v. Alabama 1969; Redlich, 2016) in which they ask defendants a series of questions or read a series of statements in order to ascertain that the plea is being made knowingly, intelligently, and voluntary. Youth who are engaged should be attending to the judge (and hearing). Those same engaged youth should be motivated to ask questions and otherwise behave in ways that reflect their desire and interest in being involved and knowledgeable. Positive associations between engagement (reflected psychologically and behaviorally) and understanding of material have been reported in educational settings (Dotterer & Lowe, 2011; Finn, & Zimmer, 2012). Such associations are also likely in plea

hearings as engaged youth attempt to absorb and seek knowledge to make better decisions. This was a primary focus of the current investigation.

As a final note, the way in which juvenile understanding has been assessed may influence the extent to which it is related to engagement. One way of assessing such understanding is through closed-ended questions that ask whether defendants recognize important information and understand their rights. This approach tends to evaluate defendants' (youth or adults) perceptions of their understanding, perhaps best reflected in situations in which defendants are asked to read, initial, or sign plea forms that explicitly ask whether they understand their rights, the parameters of the plea, and the consequences of pleading guilty. Defendants are said to understand or be knowledgeable if they assent to such statements as "I do freely and voluntarily plead guilty to the offense... and waive my right to a trial by jury" and "I understand the charges against me." While valuable in terms of securing legal (i.e., signed) documentation of specific responses by a defendant, the statements do not in and of themselves actually assess what defendants actually know. Instead, as mentioned, they assess what adult or juvenile defendants think they know, that is, their perceived knowledge.

By contrast, other approaches focus less on perceived understanding and instead on assessment of actual understanding. Such approaches are common in psycho-legal research, via open-ended questions, for instance requiring youth to explain what important legal terms and vocabulary mean (Kaban & Quinlan, 2004) or via true/false or multiple choice tests with accurate and inaccurate options included (Grisso et al., 2003; Redlich & Sommers, 2012). To the extent that engagement encourages youth to attend to their hearing, ask questions, and be involved, it may be particularly strongly related to actual knowledge. Yet, engagement may also be related to perceived knowledge if youth feel especially confident in their participation. Given these potentially different assessments of understanding—perceived v. actual—and given their potentially varied links to engagement, both were measured in the current investigation.

CHAPTER 2: METHODOLOGY

The Present Study

The overarching goal of the study was to examine youth engagement in their plea hearing and understanding of the plea process. Of particular interest was how youth's relationship with their attorneys as well as general legal attitudes relate to youth engagement, and in turn, how youth engagement relates to youth's reported and actual understanding of the plea. To address this goal, youth who had recently been involved in juvenile cases due to misdemeanor or felony offenses and who had admitted guilt (the juvenile equivalent of pleading guilty) were interviewed about their engagement, attitudes, and feelings, and understanding of the plea. Demographic characteristics and background information about their case was then collected to identify prior legal history and the date in which the youth admitted guilt.

Based on extant literature, several hypotheses were advanced. First, youth age, positive relationships with their attorney, and positive attitudes about the justice system were expected to predict greater psychological and behavioral engagement in the plea process as reported by the youth. Second, increases in youth age and both components of engagement would be associated with increases in youth's reported and actual plea understanding. The latter associations were expected to be stronger for actual than reported plea knowledge.

Participants

Participants included 82 adolescents who admitted guilt to at least one misdemeanor or felony offense in juvenile court in California. Youth were recruited within approximately one month of their most recent hearing. For a majority of these youth, this was the one in which they had admitted guilt. However, some had admitted guilt up to a year previously, and returned to court because they violated the terms of their admission, for instance, by committing another offense or by failing to remain in contact with their probation officer (92% of the sample pleaded

within the last six months). The sample was majority male (75.6%) and ranged from 11.59 to 19.61 years of age at the time of the interview ($M = 16.40$, $SD = 1.50$). Self-reported ethnicity varied and included Hispanic (77.1%), White (26.5%), Native American (9.6%), African American (8.4%), and Asian (2.4%); 24% of youth indicated more than one. Education ranged from 7th grade through freshman year of college, with half reporting having finished 10th grade. Prior arrests, according to youth self-report, ranged from 0 to 24 ($M = 2.14$, $SD = 3.63$).

Measures

Demographics and juvenile history. Background questions asked about the youth's age, grade, ethnicity, and language spoken in the home. Other questions asked about prior contact with the legal system, including number of prior arrests, number of prior cases, the number of days between when youth took their plea and the interview, youth age at their first arrest, the number of separate court cases in which youth had taken part, and the most serious crime for which youth had ever been arrested. A final question asked how many days youth had spent in detention before taking their plea.

Digit Span. Given that cognitive ability has been linked to youth knowledge and capabilities in legal settings (Colwell et al., 2005; Viljoen & Roesch, 2005), youth were administered a brief measure of working memory; the forward and backward Digit Span. Youth were read a sequence of digits and asked to correctly recall each sequence. Each trial included two sequences of the same length. If the child correctly answered at least one sequence per trial, they moved on to the next trial in which the sequence increased, in turn increasing difficulty. Youth were given a point for each successful sequence. A backward version of this test was also administered. More information on the measure, its origins, and scoring, can be found in the original measure from which it was drawn; the Wechsler Intelligence Scale for Children–III (Wechsler, 1991).

Perceptions of Attorney. Twenty-five questions, adapted from the Perceptions of Fairness in Lawyer-Client Interactions Scale (Peterson et al., 2007), asked youth about their interactions with and perceptions of their attorney (e.g., how much their attorney respected them, how objective their attorney was, how trustworthy their attorney was, how much their attorney cared about their well-being). Youth read statements and rated the extent to which they agreed with each on a 4-point Likert scale (1 = Strongly disagree, 4= Strongly Agree). A composite “perceptions of attorney” score was created by taking the mean of responses, with higher scores indicating youth holding more positive views of their attorney.

Engagement. Two measures of engagement were included. First, six questions, adapted from those in studies of youth engagement in educational settings (Fredericks, Blumenfeld, Friedel, & Paris, 2003; Yatchmenoff, 2005). Questions asked youth about their attentiveness behaviors (e.g., paying attention, listening to what the judge was saying) during the plea hearing and thus were conceptually reflective of youth’s psychological engagement. Youth rated their agreement on 4-point Likert scales (1 = Strongly disagree, 4= Strongly Agree). A composite psychological engagement score was created by averaging youth answers. Second were four yes/no (1= yes, 0=no) questions about the youth’s engagement behavior (e.g., whether the youth asked questions of the attorney or judge). Responses were summed, leading to an overall behavioral engagement score with a maximum of four. Higher scores on both measures indicated higher levels of engagement, tapping both psychological and behavioral components, during their plea hearing.

Procedural Justice. Six statements were selected from the Youth Version of the Justice System Procedural Justice Scale (Penner et al., 2013) to assess youth’s perceptions of the fairness of the system, with modifications made to tap youth perceptions of the plea. Youth rated their agreement on 5-point Likert scales (1 = Strongly disagree, 5= Strongly Agree) with a series of statements (e.g., “I had a lot of control over whether I took the guilty plea” and “I had enough

of a chance to say whether I wanted to take the guilty plea”). A mean “procedural justice” score was calculated from youth responses, with higher scores indicating higher levels of procedural justice observed by youth during their hearing.

Understanding. *Perceived understanding* (i.e., what youth said they knew) and *actual understanding* (i.e., the overall accuracy of youth’s responses) about the plea were assessed separately. Perceived understanding was calculated based on youth’s ratings of their agreement (1=Strongly Disagree to 4 = Strongly Agree) to the following statements regarding the plea process: “I understood the process,” “I understood the requirements and conditions of my plea,” and “the plea forms helped my understanding of my rights and the plea process.” Statements were selected from those commonly included in plea colloquies and waiver of rights forms to indicate that youth’s admission decision was made knowingly, intelligently, and voluntarily. A mean “perceived understanding” score was calculated by averaging youth responses, with higher scores indicating greater perceived understanding.

Actual understanding was assessed via two measures. First was a 40-item questionnaire, adapted from Redlich et al., (2012), that contained statements about the plea process, requirements, and consequences. Youth indicated whether each statement was true or false. Samples include “Guilty pleas do not have to be a voluntary choice of the defendant” (false) and “When taking a guilty plea, youth are agreeing to give up their right to trial before a judge or a jury” (true). A composite score was created by summing the number of correct answers. “I don’t know” was also an option and these answers were considered incorrect for the purposes of this study.

Second was a list of 23 legal terms (e.g., “admission of guilt”, “appeal”), selected from those that commonly appear in juvenile court forms and plea colloquies. Youth were given each term and asked to explain what it meant. Responses were reliably scored (established on 20% of

youth's interviews, randomly selected, by two coders who achieved kappa of .85) on a 3-point scale (0=no accurate information, 1=limited accurate information, 2=detailed accurate information), following coding approaches used in prior studies (Cleveland & Quas, 2018; Quas et al., 2009). For example, "plea": 2 = "whether you choose to plead guilty or not guilty of the crime in court" 1 = "to say guilty or not" 0 = "trial." Responses were summed, creating scores that could range from 0-46, with higher scores indicating greater knowledge defining plea-relevant legal terms.

Procedure

Procedures and materials were approved by the University Institutional Review Board. The county juvenile court provided an order allowing the study, and the county probation department provided additional written support.

Youth were recruited as follows. Following their most recent hearing, after youth's information was sent to one of several probation offices in the county, a staff member sent copies of eligible youth contact information to us. (Note that, some weeks, offices did not provide any information, possibly due illness or error, thus, the number of referred youth who were eligible could not be determined.) A researcher called the listed numbers to talk with parents and invite them to participate. Parents or youth were called up to three times, and texted up to three times before contact ceased. Some numbers were incorrect or no longer available; no one ever answered at other numbers. The study was explained, and interested parents and youth were invited to take part. Of those parents with whom a researcher spoke, 82 agreed and attended the interview with their child.

An in-person interview was set up at a convenient time and location of participants choice (e.g., a local library, coffee shop with quiet semi-private areas, youth's home). Two researchers attended the interview. One researcher described the study to parents/guardians

and collected information and necessary consent from them. The second researcher described the study to the youth, obtained their assent/consent, and administered the youth interview.

Measures were administered in the following order: demographics, engagement, perceived understanding, perceptions of their attorney and legal knowledge. At the end of the study, youth and parents were thanked and debriefed. Both received a gift card to a local store. Data were brought back to a laboratory, de-identified, and entered into statistical files for analysis.

CHAPTER 3: RESULTS

Analysis Plan

First, descriptive statistics were calculated on demographic and juvenile history variables and on main study variables. The latter included youth's perceptions of their attorney, the two engagement measures (i.e., psychological engagement and behavioral engagement), the procedural justice attitude score, and the three understanding composites that separately assessed youth's perceived understanding and actual understanding (i.e., perceived understanding, understanding of the plea and understanding of plea vocabulary). Second, demographic characteristics were examined to ensure no confounds existed in the data, and to identify associations within study variables (even if unexpected) that needed to be considered in subsequent analyses. We took an empirical approach to establish these associations and identify relevant covariates. Specifically, youths demographic characteristics and juvenile history were examined in relation to the key study variables. Analyses included correlations (e.g., for age, number of prior arrests, digit span) and t-tests (e.g., for gender). Third, preliminary correlations were computed among the main study variables.

Fourth, the main analyses were conducted, consisting of a series of linear regressions. These were separated into two sections corresponding to the two sets of hypotheses. First were analyses examining predictors of youth engagement. Two linear regressions analyses were conducted, one with psychological and one with behavioral engagement scores as the outcome measure. Predictors in each model were identical and included youth age, perceptions of attorney, and procedural justice attitudes. Second we conducted 3 hierarchical linear regressions separately predicting perceived understanding, understanding of the plea, and understanding of plea vocabulary. Predictors in each model included youth age, digit span

scores, and number of prior arrests (Step 1), followed by perceptions of attorney, procedural justice, psychological engagement, and behavioral engagement (Step 2).

Common assumptions of OLS were evaluated before conducting these analyses, all of which demonstrated satisfactory values based on conventional thresholds. Given the breakdown point of one for OLS regression, standardized DF fit statistics were evaluated within each regression model for potential outliers. Outliers were identified in the model predicting psychological engagement and in all three models of understanding. Sensitivity analyses were conducted by removing outliers and reconducting each hierarchical linear regression. Inferences of results did not change in our model of psychological engagement, youths' understanding of the plea, or in our model of youths' understanding of plea vocabulary. Thus, all data points remain in these models. Results, while trending in the same direction, varied slightly in the two models of perceived understanding. Thus, the hierarchical linear model with statistical outliers removed is reported.

Preliminary Analyses

Descriptive statistics can be found in **Table 1**. Relations between Digit Span scores and all main study variables were non-significant (r s ranged from $-.12$ to $.18$, p s $> .12$) except for understanding of plea vocabulary $r = .34$, $p < .01$. As digit span increased, so did youth's accuracy defining plea terms. T-tests revealed no significant gender differences in youth relationship perceptions, attitudes, engagement or understanding, (t s ranged from -1.14 to $.79$, p s $> .25$). When the number of days between when youth took their plea and the interview was correlated with the main study variables, a positive correlation emerged between days and youth plea vocabulary scores, $r = .30$, $p = .02$. No other significant associations emerged for number of days. Nor did any significant correlations emerge between other aspects of the youth's legal history (e.g., number of prior arrests, number of prior cases) and the main study variables (r s

ranged from -.08 to .09). Given no gender differences across the main study variables, it is not considered further. Nor is the number of days since the youth pled, given that it was only related to one variable and in an unexpected direction. Because youth's interaction in the justice system may contribute to their legal understanding and possibly attitudes and engagement (even if no strong bivariate associations emerged), youth's reported number of prior arrests was nonetheless included as a covariate in subsequent analyses. Prior arrests were included rather than prior cases in the model, given that prior arrests had greater variability and because not all arrests result in a case, making prior arrests a more thorough measure of total interaction with the justice system.

Next, youth age was examined in relation to main study variables. No significant relations emerged between age and youth's perceptions of their attorney, procedural justice attitudes, or psychological/behavioral engagement. However, youth age was negatively correlated with their perceived understanding of the plea $r = -.24, p = .006$, and positively correlated with their actual understanding of the plea process and plea vocabulary $r > .31, ps < .01$. Thus, at a bivariate level, younger youth said they knew more, while older youth actually evidenced better knowledge. When education was substituted for age, some similar patterns emerged: Education was positively associated with youth actual understanding of the plea process and plea vocabulary $rs > .45, ps < .001$. As would be expected, age and education were highly correlated, $r = .74, p < .001$. Because age was more variable and is a better proxy for development, age was included in subsequent analyses. Correlations among the main study variables are presented in **Table 2**.

Predictors of Youth Engagement.

First, we evaluated predictors of psychological and behavioral engagement via two linear regression analyses. In both models, age, perceptions of one's attorney, and procedural justice were included as predictors.

Psychological Engagement. When psychological engagement was entered as the outcome, the overall model was significant, [$R^2_{\text{multiple}} = .20$, $\text{Adj. } R^2_{\text{multiple}} = .16$, $F(3, 70) = 3.49$, $p < .001$], accounting for 16% of the variation. Perceptions of one's attorney emerged as a significant predictor [$b_{y2.13} = .46$, 95% CI(.22, 0.70), $t(70) = 3.86$, $p < .001$]. More positive perceptions of one's attorney was associated with reporting greater levels of psychological engagement. Neither age [$b_{y3.21} = .01$, 95% CI(-.12, .14), $t(70) = .10$, $p = .92$] nor procedural justice [$b_{y1.23} = -.02$, 95% CI(-.08, .04), $t(70) = -.64$, $p = .52$] were related to psychological engagement. Full inferential and new statistics can be found in **Table 3**.

Behavioral Engagement. When a similar analysis was conducted predicting behavioral engagement, the overall model was again significant, [$R^2_{\text{multiple}} = .15$, $\text{Adj. } R^2_{\text{multiple}} = .11$, $F(3, 69) = 4.00$, $p = .01$] and explained 11% of the variation. Both perceptions of one's attorney [$b_{y2.13} = .18$, 95% CI(.01, 0.37), $t(69) = 2.00$, $p = .05$] and procedural justice [$b_{y3.12} = .12$, 95% CI(.01, 0.22), $t(69) = 2.25$, $p = .03$] were significant. As youth's perceptions of their attorney became more positive and as their procedural justice attitudes became more positive, self-reported behavioral engagement increased. Age [$b_{y3.21} = .00$, 95% CI(-1.59, .52), $t(69) = -.27$, $p = .79$] was again not significantly related to behavioral engagement. Full inferential and new statistics can be found in **Table 4**.

Engagement and Understanding

In the analyses of youth plea understanding, separate models examined perceived understanding, understanding of the plea and plea vocabulary scores. First, age, digit span

scores, and number of prior arrests were entered followed by youth's perceptions of their attorney, procedural justice attitudes, and psychological and behavioral engagement.

Perceived Understanding. In the first step of the regression, that is, when youth age, digit span, and number of prior arrests were entered, the model was non-significant, [$R^2_{\text{multiple}} = .07$, Adj. $R^2_{\text{multiple}} = .02$, $F(3, 58) = 1.50$, $p = .23$]. When youth's perceptions of their attorney, procedural justice attitudes, psychological engagement, and behavioral engagement were included, the model became significant [$\Delta R^2 = .53$, $\Delta F(4, 54) = 18.30$, $p < .001$] and explained an additional 36% of variation in perceived understanding. The final model including both sets of predictors explained 56% of the variation in perceived understanding [$R^2_{\text{multiple}} = .61$, Adj. $R^2_{\text{multiple}} = .56$, $F(7,54) = 11.87$, $p < .001$]. Youth's perception of their attorney [$b_{y4} = .55$, 95% CI (.28, .82), $t(58) = 4.06$, $p < .001$] and psychological engagement [$b_{y6} = .45$, 95% CI (.14, .74), $t(58) = 3.54$, $p = .001$] were both significant, and procedural justice attitudes approached significance [$b_{y5} = .12$, 95% CI (.01, .33), $t(58) = 1.82$, $p = .08$]. More positive perceptions of youth's attorneys, higher reported psychological engagement, and somewhat more positive procedural justice attitudes were associated with higher levels of perceived understanding. Full inferential and new statistics are provided in **Table 5**.

Understanding of the Plea. The next hierarchical regression predicted youths' actual understanding of the plea. First, youth's scores on the T/F measure were considered. When the first set of predictors--age, digit span, and number of prior arrests--were considered, the model was significant and explained a significant proportion of the variation in youth TF understanding scores [$R^2_{\text{multiple}} = .27$, Adj. $R^2_{\text{multiple}} = .24$, $F(3,60) = 7.52$, $p < .001$]. When perceptions of attorney, procedural justice, psychological engagement, and behavioral engagement were added to the model, ΔR^2 was nonsignificant [$\Delta R^2 = .02$, $\Delta F(4, 56) = .43$, $p = .79$]. The final model including both sets of predictors explained 21% of the variation in youths' understanding of the plea [$R^2_{\text{multiple}} = .30$, Adj. $R^2_{\text{multiple}} = .21$, $F(4,56) = 3.34$, $p = .005$]. In the

first step, age was the only significant predictor [$b_{y1} = 1.19$, 95% CI (.65, 1.73), $t(60) = 4.43$, $p < .001$]. With age, as would be expected, T/F knowledge scores increased. Full inferential and new statistics are provided in **Table 6**.

Understanding of Plea Vocabulary. In the final model, youths' actual understanding of plea vocabulary was considered. Step 1, with age, digit span, and prior arrests, was significant and explained a significant proportion of the variation in understanding of the plea vocabulary [$R^2_{\text{multiple}} = .27$, Adj. $R^2_{\text{multiple}} = .23$, $F(3,53) = 6.43$, $p < .001$]. When youth's perceptions of their attorney, procedural justice, psychological engagement, and behavioral engagement was added, ΔR^2 approached significance [$\Delta R^2 = .11$, $\Delta F(4,49) = 2.19$, $p = .08$]. Because predictions had been made, the final model, which accounted for 29% of the variance, was nonetheless examined [$R^2_{\text{multiple}} = .38$, Adj. $R^2_{\text{multiple}} = .29$, $F(7,49) = 4.26$, $p < .001$]. Being older [$b_{y1} = 1.06$, 95% CI (.30, 1.82), $t(56) = 2.98$, $p = .007$], having higher digit span scores [$b_{y2} = .30$, 95% CI (.06, .55), $t(56) = 2.49$, $p = .02$], and reporting more behavioral engagement [$b_{y7} = 4.42$, 95% CI (.75, 8.08), $t(56) = 2.42$, $p = .02$] were associated with better scores on the plea vocabulary items. Thus, as anticipated, youth engagement, specifically reflected in behaviors indicating active involvement in the plea hearing, was related to a greater understanding of at least some aspects of the terminology common to plea hearings. Full inferential and new statistics are provided in **Table 7**.

CHAPTER 4: DISCUSSION

The central goal of this study was to explore youth's engagement in their plea hearing and the implications of this engagement for youth's understanding of the plea. Youth who were recently involved in hearings in which they admitted guilt to a felony or misdemeanor in juvenile court were asked about their engagement, their feelings about their attorneys and procedural justice, and their understanding of the plea process. Results suggested that perceptions about one's lawyer and procedural justice were positively related to engagement. Predictors of understanding varied between the 3 measures; age emerged as a predictor of both measures of actual understanding of the plea (T/F, and vocabulary measures) and engagement emerged as potentially important for both perceived and actual understanding of the plea. These results are discussed, first in relation to youth engagement, and how this might be encouraged among vulnerable youth, and second in relation to youth understanding, and how engagement might be valuable to promote when youth become immersed in the justice system.

Engagement

Past research has identified that vulnerable youth, such as low-income youth and youth in foster care, are at risk for low engagement in important settings (e.g., school, community settings, medical settings: Ellis et al., 2011; Kim et al., 2012; Weisz et al., 2011). The present study's results partially aligned with prior work. A quick evaluation of youth mean engagement scores, for example, showed that youth did not see themselves as having been behaviorally engaged, even though their psychological engagement was more noteworthy. Youth reported being attentive, actively listening, and interested during their hearing. However, they also reported asking very few questions. Thus, it appears that youth feel they can participate in the intake of information, but may not have the confidence, opportunity, or ability to actively seek information for themselves by asking questions. This finding is consistent with reports from

legal professionals such as attorneys, judges, and prosecutors who have noted youth have difficulties participating in their own representation. Alternatively, it may be that youth, in fact, feel informed enough that they do not need to ask questions. It is important, however, to note that the extant literature on youths' lack of legal knowledge and understanding, in addition to our own findings of low understanding of the plea, do not support the idea that most youth are truly well informed.

Given low levels of understanding, it was important to consider what factors might drive youths' engagement as a facilitator. More positive perceptions of attorneys were positively associated with both psychological and behavioral engagement. While behavioral engagement in the sample was low, this relation is promising. The perceptions of attorney scale tapped into many important components of youths' relationship with their attorney such as respect, trustworthiness, and participation. Therefore, it appears that youth who trust their lawyer, feel respected by them, and encouraged by them to participate are more likely to feel comfortable asking questions during their hearing.

While this data is only correlational, theory in education has found a reciprocal relation between youths' engagement in the classroom and relationships with educators (Skinner & Belmont, 1993). That is, youth who have positive perceptions of their educators tend to be the most engaged in the classroom, and reciprocally, engagement in the classroom promotes positive responses from educators, leading to further enhancement of youths' positive perceptions. It is not surprising that encouragement, comfortability, and feelings of mutual respect often lead youth to report feeling supported by teachers, and therefore more comfortable engaging their education (Cook-Sather, 2007; Murray & Murry, 2004). If this relation holds true in the legal context, it may be that youth who have positive relationships with their attorney are more attentive and willing to ask important questions during their hearing, and that positive responses to such engagement by their attorney further heightens youths' positive attitudes

toward them. Of course, it may also be the case that youth who are more engaged receive more positive attention from attorneys, which in turn creates a more positive relationship. While the direction of this relation and other potential mediating variables should certainly be explored further, youth's relationship with their attorney may be a promising point of intervention for disengaged youth.

Another important predictor of behavioral engagement was youths' perceptions of procedural justice during their hearing. Procedural justice attitudes in this context reflect the perceived fairness of decision-making procedures surrounding youths' plea deal. Given that perceptions of procedural justice are often strongly related to individuals' opportunities to participate in or have a voice in legal processes and decisions (Cohen, 1985; Tyler, 2003; Solum, 2004), it is not surprising that it was positively related to youths willingness and/or ability to ask questions during their plea hearing. This relation may also be reciprocal. That is, it may be that youth who asked questions during their hearing felt more involved in the decision-making process during their hearing, which led to higher ratings of procedural justice. Or, perhaps, youth who felt the process was procedurally just were more willing to engage and ask questions. Regardless of the catalyst, higher levels of behavioral engagement and procedural justice attitudes have both been associated with positive outcomes such as higher levels of legal knowledge, and higher likelihood of compliance with the courts. Therefore, promotion of both constructs may be valuable in legal proceedings.

Understanding

This study's primary focus on youth engagement during their plea hearing, was driven by the notion that engagement is likely beneficial to understanding of one's plea and may enable youth to make informed decisions. Understanding during the plea hearing is crucial, not only so defendants can make the most informed choices, but because their very ability to accept their

plea is legally dependent on them doing so knowingly, voluntarily, and intelligently. Defendants, including youth, are often directly asked if they understand and made their decision knowingly and without pressure via oral colloquies. Colloquy questions do not directly test defendant knowledge, but instead ascertain whether defendants meet these requirements, and may be distinguishable from questions that directly ask what defendants know about their rights, the plea, and its consequences. Both types of knowledge (perceived and actual) were explored in the current study, as were predictors, including engagement, of their knowledge.

First, of interest, findings revealed that youth's perceived understanding of the plea was not related to their ability to accurately identify true and false statements, or their ability to define terms common to the plea. Some youth indeed reported that they understood the process, requirements, and conditions of their plea, but many of these same youth may have had difficulty when asked more direct questions about their underlying knowledge. One potential explanation for this is that youth may have inaccurate perceptions of how much information they obtained passively from their plea hearing. Research in education has found that students in passive learning classrooms tend to report that they learned more than students in active learning classrooms, even though the opposite is true when actual knowledge is measured (Deslauriers, McCarty, Miller, Callaghan, & Kestin, 2019). This is likely because students in passive settings are not required to put forth as much cognitive effort as students in an active learning environment, and cognitive effort may falsely lead students to intuit poor understanding or performance. Thus, it is possible that youth who made efforts to understand, and who in turn know the most, may report poorer levels of understanding, while youth who passively attended their hearing are overly confident in their knowledge. Yet, measures of perceived understanding are often used as a proxy for actual understanding in the court of law. Given the discrepancies between these measures in this sample, caution is warranted when

interpreting youth defendants' claims about their understanding without probing further for their actual understanding.

Second, predictors of perceived and actual legal understanding also differed. Youth's perceptions of their attorney, psychological engagement, and procedural justice all predicted youth's perceived understanding of the plea, but not their actual understanding. Hence, it appears that youths' perceptions, attitudes, and willingness to pay attention are related to what they believe or report that they know, but unrelated to their capacity to make an informed decision to plead guilty. Developmentally, it may be that younger youth simply did not have the vocabulary and/or sustained attention necessary to comprehend and process much of the information given during their hearing, and subsequently, questions asked about the plea in our measures of plea understanding. Nevertheless, positive perceptions of their attorney, the process, and their willingness to engage psychologically may have given some youth a sense of ease, which could have led to a false sense of confidence in their actual knowledge.

While psychological engagement was not predictive of actual understanding, behavioral engagement emerged as a positive predictor of youth's actual understanding of plea vocabulary, even when controlling for age and working memory capacity as measured by the digit span test. Age was also positively associated with youths' accuracy when answering definitional and T/F questions about the plea. Such is not surprising, given that, with age, youth advance educationally, meaning they are increasingly exposed to, and often have a better understanding of terms used in legal proceedings (Saywitz, Jaenicke, & Camparo, 1990). In summary, it appears that instead of attitudes and relationships predicting actual knowledge, more concrete developmental and behavioral indicators did.

CHAPTER 5: LIMITATIONS AND FUTURE DIRECTIONS

Juveniles, like adults, are legally required to make a knowing, voluntary, and intelligent decision when they plead guilty. Thus, it is crucial to understand what factors may affect youths' ability to meet such requirements. To our knowledge, this was the first study to explore the relation between juvenile engagement during their plea hearing, and their reported and actual knowledge surrounding their pleas. While this study offers novel insight on these topics, several limitations call for further research in this area.

At the beginning of each interview, youth were assured that their responses were completely confidential, and encouraged at multiple points to respond honestly. Yet, it is important to note that measures of engagement, perceptions of one's attorney, and of procedural justice in this study were reported by youth themselves. While we do not foresee any reason why youth would intentionally misreport perceptions of their attorney or their opinions regarding procedural justice, engagement in one's case could be perceived by youth as a desirable quality, which could result in inflated reports. Observations suggest that while most youth reported moderate to high levels of psychological engagement, the majority also reported low levels of behavioral engagement, lending evidence to the idea that youth did not feel the need to exaggerate their willingness to speak up during their hearing. Nevertheless, one possible extension of this work would be to operationalize behavioral and psychological engagement in terms of observed (rather than reported) behavior, and measure these behaviors (e.g., recording whether the youth are actively listening and asking questions during their hearing) during youths plea hearings, before surveying them about their knowledge.

Second, by sampling youth who pled guilty shortly after their hearing, we were able to identify relations between youths perceptions, engagement, and legal knowledge. While this method provides important and novel insight on these relations, it is of course observational in

nature, and therefore cannot provide proof of causal links between these variables. Positive relations were however identified between key, intervenable variables such as behavioral engagement and youths' understanding of important legal vocabulary. Thus, future work should attempt to identify potential causal mechanisms underlying relations between engagement and the knowledge necessary to make a knowing, voluntary, and intelligent plea decision.

Finally, while this sample allowed us to evaluate potential real-world consequences of youth engagement during their plea hearings, it is important to consider how the recruitment, and demographics of the sample, as well as the location of the juvenile court observed, may have influenced results. Data was collected from a juvenile court in California where the majority of the sample was male, and self-identified as Hispanic. Furthermore, all participants in this sample had parents and/or guardians who were willing to answer calls for participation. Thus, the participants are not necessarily representative of all juveniles who are processed in this location. For these reasons, it is important to consider how youths' family history, procedures employed by the courts themselves, and recruitment may be associated with engagement and legal knowledge. Future work should compare juvenile courts in different parts of the country to understand how youths' backgrounds and the courts' procedures themselves influence youth engagement, and their ability to make a knowing, intelligent, and voluntary decision to admit guilt.

Conclusion

Because a plea must be made knowingly, intelligently, and voluntarily to be considered legally valid, and given the potential gravity of consequences often attached to a plea deal, it is crucial that youth in the juvenile justice system are making an informed plea decision. To our knowledge, this was the first look at how youth engagement during the plea hearing relates to their understanding of the plea. We found that relationships with legal authorities, and attitudes

surrounding the legal process are related to youth's engagement in this hearing. While youth of all ages struggled to understand plea related conditions and terminology, our findings suggest that youth who asked questions and actively engaged in their plea hearing often had a better understanding of important plea terminology. Surprisingly, youth's perceived plea knowledge was not related to either measure of their actual plea knowledge. This warrants caution when using juvenile's reports alone (e.g., answers to yes/no questions found in many plea colloquies) to determine they are making a knowing, intelligent, and voluntary plea decision. Finally, it appears that behavioral engagement may be one important facilitator of the understanding required to make a valid plea decision.

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Table 1

Descriptive statistics on juvenile demographic variables

Variable	M	SD	<i>Lower</i>	<i>Upper</i>
Age	16.00	1.51	11.59	19.71
Grade Level	10.23	1.50	7	14
Number of Prior Arrests	2.01	3.63	0	24
Total Number of Court Cases	2.50	4.47	0	35

Table 2

Point-biserial correlations between key variables

Variable	1	2	3	4	5	6	7
1 Perceptions of Attorney	1						
2 Psychological Engagement	.41**	-					
3 Behavioral Engagement	.29*	.44**	-				
4 Procedural Justice	.16	.09	.31**	-	-	-	-
5 Perceived Understanding	.53**	.52	.40**	.28*	-		
6 Understanding of the Plea	-.15	-.03	-.09	-.14	-.16	-	
7 Understanding of Plea Vocabulary	-.04	.11	.34**	.14	-.17	.37**	

Note. Correlations marked with *, or ** are significant at the .05, or .01 alpha level, respectively.

Table 3

Multiple regression analysis predicting Psychological Engagement (N = 73)

Variable	<i>b</i>	<i>Lower</i>	<i>Upper</i>	<i>t</i>	<i>p</i>	<i>b*</i>
Age	-.02	-.08	.04	-.64	.52	-.07
Perception of attorney	.46	.22	.70	3.86	<.001	.42
Procedural Justice	.01	-.12	.14	.10	.92	.01
<i>R</i> ²	.20					
Adj. <i>R</i> ²	.16					

Table 4

Multiple regression analysis for predicting Behavioral Engagement (N = 72)

Variable	<i>b</i>	<i>Lower</i>	<i>Upper</i>	<i>t</i>	<i>p</i>	<i>b*</i>
Age	-.01	-.05	.04	-.27	.79	-.03
Perception of attorney	.18	.00	.37	2.00	.05	.23
Procedural Justice	.12	.01	.22	2.25	.03	.26
<i>R</i> ²	.15					
Adj. <i>R</i> ²	.11					

Table 5

Hierarchical regression analysis predicting youths Perceived Understanding of the Plea (N =63).

Variable	Model 1						Model 2					
	95% CI						95% CI					
	<i>b</i>	<i>Lower</i>	<i>Upper</i>	<i>t</i>	<i>p</i>	<i>b*</i>	<i>b</i>	<i>Lower</i>	<i>Upper</i>	<i>t</i>	<i>p</i>	<i>b*</i>
Age	-.12	3.41	6.82	-2.38	.02	-.30	-.07	-.15	.00	-1.95	.06	-.18
Digit Span	.00	-.03	.032	-.06	.95	-.01	-.01	-.03	.02	-.72	.47	-.07
Prior Arrests	.00	-.05	.05	.05	.96	.01	.00	-.04	.04	.18	.86	.02
Perception of Attorney	-	-	-	-	-	-	.64	.32	.96	3.98	<.001	.39
Procedural Justice	-	-	-	-	-	-	.17	.01	.33	2.13	.04	.20
Psychological Engagement	-	-	-	-	-	-	.44	.14	.74	2.97	<.01	.30
Behavioral Engagement	-	-	-	-	-	-	.25	-.15	.65	1.25	.22	.20
R^2	.09						.57					
Adj. R^2	.04						.52					

Note: Model 1 includes set A (Age, Digit Span, and Prior Arrests). Model 2 adds the variables from set B (Perception of Attorney, Procedural Justice, Psychological Engagement, Behavioral Engagement)

Table 6

Hierarchical regression analysis predicting youths Actual Understanding of the Plea (N =63).

Variable	Model 1						Model 2					
	95% CI						95% CI					
	<i>b</i>	<i>Lower</i>	<i>Upper</i>	<i>t</i>	<i>p</i>	<i>b*</i>	<i>b</i>	<i>Lower</i>	<i>Upper</i>	<i>t</i>	<i>p</i>	<i>b*</i>
Age	1.19	.65	1.73	4.43	<.001	.28	1.12	.58	1.70	4.08	.000	.47
Digit Span	.00	-.17	.17	.01	.99	.09	.01	-.17	.19	1.15	.94	.01
Prior Arrests	.14	-.13	.41	1.05	.30	.12		-.120	.45	4.08	.25	.47
Perception of Attorney	-	-	-	-	-	-	-	-3.49	1.31	.07	.37	.01
Procedural Justice	-	-	-	-	-	-	-	-1.54	.86	1.15	.57	.14
Psychological Engagement	-	-	-	-	-	-	-	-1.94	2.51	-.91	.80	-.11
Behavioral Engagement	-	-	-	-	-	-	-	-3.46	2.49	-.565	.75	-.07
<i>R</i> ²	.27						.30					
Adj. <i>R</i> ²	.24						.21					

Note: Model 1 includes set A (Age, Digit Span, and Prior Arrests). Model 2 adds the variables from set B (Perception of Attorney, Procedural Justice, Psychological Engagement, Behavioral Engagement).

Table 7

Hierarchical regression analysis predicting youths Understanding of Plea Vocabulary (N =56).

Variable	Model 1						Model 2					
	<i>b</i>	95% CI		<i>t</i>	<i>p</i>	<i>b</i> *	<i>b</i>	95% CI		<i>t</i>	<i>p</i>	<i>b</i> *
		<i>Lower</i>	<i>Upper</i>					<i>Lower</i>	<i>Upper</i>			
Age	.93	.17	1.70	2.44	.02	.29	1.06	.30	1.82	2.80	.01	.33
Digit Span	.38	.13	.62	3.11	.00	.38	.30	.06	.55	2.49	.02	.30
Prior Arrests	-.12	-.46	.22	-.72	.48	-.09	-.09	-.43	.25	-.54	.59	-.06
Perception of Attorney	-	-	-	-	-	-	-2.01	-5.05	1.04	-1.32	.19	-.17
Procedural Justice	-	-	-	-	-	-	.24	-1.29	1.77	.31	.76	.04
Psychological Engagement	-	-	-	-	-	-	.76	-2.14	3.66	.53	.60	.07
Behavioral Engagement	-	-	-	-	-	-	4.42	.75	8.08	2.42	.02	.32
<i>R</i> ²	.27		.23									
Adj. <i>R</i> ²	.38		.29									

Note: Model 1 includes set A (Age, Digit Span, and Prior Arrests). Model 2 adds the variables from set B (Perception of Attorney, Procedural Justice, Psychological Engagement, Behavioral Engagement).