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Self-efficacy and Confidence:

Theoretical Distinctions and Implications for Trial Consultation

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Abstract

Self-Efficacy Theory (SET; Bandura, 1986, 2000) has generated research and practice ramifications across areas of psychology. However, self-efficacy has yet to be assessed in a legal context. The present paper juxtaposes self-efficacy with self-confidence in terms of theoretical foundations and practical implications, with attention to the area of witness testimony. It is concluded that the concept of witness self-efficacy possesses thorough theoretical grounding as a potential target for witness preparation. As such, we put forth an integrated model of witness preparation featuring self-efficacy bolstering techniques within an established witness training framework.

Key words: Self-efficacy, confidence, witness testimony, witness preparation

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Witness testimony represents one of the most pivotal influences in the judicial system. As a result, psychological literature has seen increased attention to witness confidence (e.g., Braun & Loftus, 1998; Loftus, 2005; Slovenko, 1999), credibility (e.g., Bollingmo, Wessel, Eilertsen, & Magnussen, 2008; Castelli, Goodman, & Ghetti, 2005; Ruva & Bryant, 2004), and preparation (e.g., Boccaccini, 2002; Boccaccini, Brodsky, & Gordon, 2005; Boccaccini, Gordon, & Brodsky, 2003; Nietzel & Dillehay, 1986; Posey & Wrightsman, 2005). The rise in witness-related research coincided with higher frequencies of trial consultants aiding attorneys in tasks such as jury selection and witness preparation. Trial consultation offers a rich area for psychologists to apply theoretical and empirical knowledge. The present paper addressed the link between psychological consultation and the law by examining social psychological constructs of self-efficacy and self-confidence both generally and within witness testimony. Drawing distinctions between these constructs is important because self-efficacy and self-confidence are differing variables often used interchangeably. We show that self-efficacy and self-confidence differ in terms of focus of definition, theoretical support, practical application, and construct composition (i.e., affect, behavior, and cognitive components).

Practically speaking, both constructs hold potential value for witness testimony and witness preparation. As a beginning point we broadly define and review the literature on self-efficacy and self-confidence with a focus on critically comparing the two constructs. Then, these constructs are directly applied to witness testimony from the theoretical standpoint of defining witness self-efficacy and witness confidence. Finally,

applied implications of self-efficacy and self-confidence are shown within the framework of witness preparation, broadly defined as the practice of training witnesses in effective verbal and non-verbal testimony techniques.

What is Self-Efficacy?

Social-Cognitive Theory espoused by Albert Bandura (1977, 1986) provides a theoretical foundation for perceptions of abilities. Bandura (1986, 1997, 2000) defined self-efficacy as one's perceived ability to effectively accomplish or demonstrate a behavior or series of behaviors in a given situation. Self-Efficacy Theory (SET) is grounded in the empirically-supported belief that a person's perceived ability generates or facilitates action and change (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001).

One domain in which Bandura et al. cogently illustrated the impact of self-efficacy is child development (e.g., Bandura et al., 2001; Pastorelli et al., 2001). Bandura et al. (2001) concluded that children's self-efficacy was a direct determining factor of career choice, and their self-efficacy mediated the impact of environmental factors such as parental roles in promoting academic success. Moreover, Pastorelli et al. (2001) noted some differences in self-efficacy beliefs in academic self-regulatory efficacy, or the ability to control one's own academic efforts and outcomes. Overall, children's social and academic self-efficacies demonstrated solid support and generalizability across cultures. Findings such as these showed that one's perceived self-efficacy is a potential contributing agent of change that appears across cultures. The principle of self-efficacy as an agent of change has been extrapolated to a variety of contexts such as alteration of diet (Hagler et al., 2007) and boosting teacher effectiveness (Sparks, 1988).

Given the motivational and behavioral impacts of self-efficacy, the underlying theory on mechanisms of self-efficacy may best help one comprehend the construct. Bandura (1989, 1993) outlined the basic processes by which self-efficacy is a determinant of thoughts, feelings and behaviors. First, the author noted that cognitions related to high self-efficacy were high goal setting and increased likelihood to imagine successful scenarios (Bandura, 1993). The opposite is also true; those low in self-efficacy tended to visualize failure. Bandura (1993) noted the cognitive potency of self-efficacy: "a person with the same knowledge or skills may perform poorly, adequately, or extraordinarily depending on fluctuations in self-efficacy thinking" (p. 119). He also stated that degree of self-efficacy is positively associated with effort in information processing and intrinsic motivation. Self-efficacy operates on an affective level to the extent that it correlates with one's self-esteem, depressive thinking, and anxiety (Bandura, 1989, 1993). As a point of integration, self-efficacy promotes positive change in cognitive processing (information processing) and emotional state (desire to succeed in academics), which in turn, impact behavior (Bandura, 1993).

Two assertions arise from the multifaceted operations of self-efficacy. First, measures of self-efficacy apply across various behavioral domains. Second, self-efficacy can be quantitatively assessed as a target of intervention and outcome of effectiveness across these domains. SET generated many general and specific self-efficacy measures in areas including general self-efficacy (e.g., Chen, Gully, & Eden, 2001; Sherer, Maddux, Mercadante, Prentice-Dunn, Jacobs, & Rogers, 1982), social functioning (Sherer et at., 1982), physical prowess (Ryckman, Robbins, Thornton, & Cantrell, 1982), caregiving (Steffen, McKibbin, Zeiss, Gallagher-Thompson, & Bandura, 2002), teaching

ability (e.g., Everett, Price, & Telljohann, 1996), and academic competence (e.g., Yufang, 2004). The numerous self-efficacy measures led Bandura to outline guidelines for development of such scales (see Bandura, 2005 for further details). An example of a self-efficacy scale used in training was established by Ozer and Bandura (1990). They developed and validated scenarios to assess self-defense self-efficacy subsequently utilized as an indicator of self-defense training effectiveness (Weitlauf, Smith & Cervone, 2000; Weitlauf, Cervone, Smith, & Wright, 2001).

Empirical evidence exists concerning self-efficacy as a domain-specific construct predicting behavioral outcomes. For example, self-efficacy and personality traits have been compared in predicting task performance in organizational psychology (e.g., Judge, Jackson, Shaw, Scott, Jackson, & Rich, 2007). Judge and colleagues showed self-efficacy to be more strongly related to work performance ($r = .37$) when compared to Five Factor Model (FFM) personality trait domains (r ranging from .08-.28) in separate models. However, when placed in predictive models together, self-efficacy offered no significant contribution when added after FFM domains. Mixed results pertaining to self-efficacy as a predictor of work performance was complicated by Avery's (2003) findings that self-efficacy predicted ability to voice opinions in a work environment better than four of five FFM domains. Extraversion displayed comparable predictive value.

The example of self-efficacy's functioning related to behaviors in professional settings illustrates how SET can be judged in a particular area. SET would be validated in a particular area to the degree that it displays meaningful relations with other constructs. Self-efficacy consistently displayed positive associations to performance or behavioral outcomes in psycho-organizational research (e.g., Avery, 2003; Bauer,

Bodner, Erdogan, Truxillo, & Tucker, 2007; Judge et al., 2007; Stajkovic & Luthans, 1998). However, the contribution of self-efficacy above and beyond general traits remains unclear. Thus, SET was somewhat validated in this domain. SET can be judged in the same vein in a legal context, namely witness preparation. The degree to which self-efficacy is associated with behavioral outcomes in testimony, the greater the validation of SET in this setting. For example, effective testimony often includes behaviors such as an upright posture and use of lay terminology, among others (e.g., Boccaccini et al., 2005; Cramer et al., 2009). Witness self-efficacy should be positively correlated with the ability to perform such behaviors while testifying. The discussion of self-efficacy applied to psychology-law below is, to our knowledge, the first conceptual examination of its kind.

Comparing a domain-specific self-efficacy to global traits raises the question whether self-efficacy is itself a trait. Conceptualization of self-efficacy as an attitude or trait may inform applications of techniques used in forensic settings. We posit that, much in the way global self-confidence or extraversion are traits, general self-efficacy is one as well. General self-efficacy implies a belief in one's ability across situations. Personality traits can be broadly defined as stable reaction patterns across situations. Therefore, general self-efficacy is conceived of as a trait. On the other hand, task-specific self-efficacy such as witness self-efficacy is a narrower belief system consistent with Bandura's (1997) perspective. Such beliefs germane to a particular setting provide ripe intervention points for skill building in domains such as witness testimony. The use of task-specific beliefs in witness testimony is discussed in further detail later.

In sum, the overall theoretical picture of self-efficacy is that the construct is likely context-specific (Bandura, 1997), given its various degrees of functioning across domains. There seems to be overall agreement on the definition and specificity of the term "self-efficacy." However, there is discord concerning opinions about the term "general self-efficacy" and different definitions and applications of self-efficacy have emerged (Chen, Gully, & Eden, 2001). This distinction has bearing on the present discussion because some lack of accord exists in theoretical perspectives of the nature of self-efficacy. Researchers (e.g., Chen et al., 2001; Judge, Locke, Durham, & Kluger, 1998) have promoted a definition of general self-efficacy as perceived competence across domains. They advocated the stance that general self-efficacy is of more value than context-specific conceptions of self-efficacy when predicting direct and indirect effects on beliefs and behavioral performance. This position is in direct contrast with those who have argued that task-specific self-efficacies are paramount (e.g., Bandura, 1997). This disagreement not withstanding, the majority of self-efficacy studies portrayed the construct as domain-specific.

We now turn to self-confidence as a comparative construct for two reasons. First, it is often inaccurately used interchangeably with self-efficacy. Second, both constructs have implications for witness testimony that are reviewed toward the end of this discussion.

Self-confidence: Definition and comparison to self-efficacy

A general definition held that confidence reflects a degree of certainty about a perception, event, or outcome (e.g., Merkle & Zandt, 2006). Self-confidence differs from self-efficacy in that self-efficacy is a specific perception about one's ability to conduct a

particular behavior (Bandura, 1997). Table 1 summarizes the similarities and differences between self-efficacy and self-confidence that will be discussed below. The Table also juxtaposes witness self-efficacy and witness confidence. These constructs are reviewed below as well.

Insert Table 1 Approximately Here

Empirical investigations on confidence related to judgments, events, or outcomes. A common example to aid in understanding confidence is accuracy of eyewitness testimony. Researchers demonstrated that confidence in one's identification of a defendant does not necessarily imply high accuracy (e.g., Weber & Brewer, 2004; Wells, Ferguson, & Lindsay, 1981). Confidence functions as a degree of certainty about one's judgment, and, in turn, the outcome of the testimony. Slovenko (1999) offered a similar definition of confidence in the area of expert testimony as the degree of certainty a witness expresses in his or her conclusions. Again, this definition of confidence portrayed a relatively broad belief about a person's perceptions of an act or behavior after the fact. Self-efficacy, however, is a specific perceived belief about one's ability to actually carry out a behavior.

Bandura (1997) differentiated between self-confidence and self-efficacy. He noted that the term confidence lacks a target of certainty, whereas self-efficacy targets perceived competence in a given behavior. In other words, self-efficacy represents both "affirmation of capability and strength of that belief" while confidence reflects only strength of certainty about a performance or perception (p.382). Bandura noted that

"confidence" is often employed without a theoretical basis. Self-efficacy, however, was grounded in social-cognitive theory and considerable empirical data.

Bandura's argument that confidence is an over used term lacking theoretical consistency warrants detailed examination. Existing theories of confidence may clarify whether confidence is truly conceptualized as a construct with little or no behavioral linkages. The overall status of confidence theories can then easily be evaluated against Self-Efficacy Theory. Literature on confidence theory can be divided into a) studies on the confidence-accuracy relation and b) attempts to define a comprehensive theory. These areas were reviewed below and followed by conclusions on confidence theory.

Confidence-Accuracy Literature

Much of the confidence literature stems from the relation between confidence and accuracy. For example, Brewer, Sampaio, & Barlow (2005) investigated the "metamemory theory of confidence" (p. 618), proposing a definition in which confidence judgments are based on metacognitive thoughts about external confidence cues and subsequent perceptions about their accuracy in recall. Results of two studies supported a positive relation between confidence and performance accuracy for easy word shifts, but did not hold for complex synonym items. The authors explained the latter finding by noting that participants still rated their confidence high when making numerous errors due to a false belief that full, detailed recall equates to accuracy. In short, participants in high complexity situations employed a "metamemory" judgment of confidence based on depth of recall. Of note is the conclusion that participants drew their confidence from degree of successful recall. Retrospective judgments of confidence in the metamemory theory discussion supported the assertion that confidence is a judgment made after actual

attempts at a performance. Applied to testimony, a witness would judge his or her confidence after testifying based on abilities such as fact recall.

Attempts to Define a Comprehensive Confidence Theory

Theories of confidence arguably lack uniformity. Gigerenzer, Hoffrage, and Kleinbolting (1991) provided one of the first empirically-driven attempts at a comprehensive model. They described part of their motivation for deriving the Probabilistic Mental Model (PMM) as an effort to address the lack of consistency in confidence theories. They put forth a new idea: A confidence-frequency principle comparing the tendency to rate confidence in accuracy in one instance versus overall probability of a correct identification. Their results suggested that people tend to overestimate their accuracy in single items or questions, but were quite accurate in rating overall accuracy.

Gigerenzer et al. classified two underlying cognitive techniques in formation of confidence judgments. The first, a "local mental model (MM)," represented a quick confidence judgment for a given task based on prior experience and basic cognitive operations (p. 507). On the other hand, individuals formed a PMM if the heuristic judgment is unsuccessful. PMMs framed the given task in the background of all possible instances of a given task. In this way, PMMs evaluated success probability by considering what is necessary in the present task and what is required for success in the given environment. Additionally, PMM formation accounts for extraneous factors other than the target task. The probability of successful witness testimony provides a good example for PMM formation. If a witness forms a PMM, it would compare the specific instance of testifying in that case (e.g., remembering facts of the particular case, dealing

with the attorney conducting examination) to overall facets related to the general courtroom environment (e.g., talking to a jury, behavior in a legal setting). A PMM would also take into account other factors (e.g., aggressiveness of cross-examination, unrelated stress in the witness's life at the moment). A final probability rating of confidence would be generated after weighing these factors.

Although Gigerenzer and colleagues put forth the idea of a local mental model, they failed to explicitly define how it serves as an avenue for shortcut confidence judgments. However, much research investigated a Confidence Heuristic Model in which individuals use external cues and past experience to form rapid judgments of confidence (e.g., Price & Stone, 2004; Yates, 1990; Yates, Price, Lee, & Ramirez, 1996). Price and Stone (2004) defined the confidence heuristic from the standpoint of overconfidence. Evidence has begun to accumulate in the literature that perceivers misuse confidence cues to judge accuracy or credibility of a source (e.g., Loftus, 2005; Price & Stone, 2004). In sum, overconfidence can be associated with perceptions of high credibility or competence.

Shrauger and Schohn (1995) articulated one of the most empirically-derived and comprehensive conventions for understanding confidence. Overall, authors argued for a conception of confidence similar to that of self-efficacy: They proposed the existence of both general and domain-specific confidences. From this perspective, general confidence displayed disparate relations to other constructs when compared to confidence in specific tasks. Another conceptual strength of their view is a distinction between confidence (general judgment of assuredness) and self-worth (judgment of worthiness or esteem).

Shrauger and Schohn (1995) elaborated on their theory of confidence in two important ways. First, they highlighted sources of confidence, including judgments from actual performance and stated levels of confidence based on socially desirable responding. Second, authors commented on how confidence is a trait detectable by others in social interactions and activities. Others "should be able to judge a person's confidence level" (p. 259). Therefore, they observed how confidence (and confidence ratings) is a product of behavior that feeds into subsequent decisions to engage in a behavior again. The latter part of this conception is similar to the SET position that self-efficacy determines behavioral action and change.

There are flaws in Shrauger and Schohn's perspective. For instance, their scale development and principles were somewhat limited in scope due to the focus on college student confidence (i.e., assessing components of confidence that are of significance to members of this population as opposed to a highly generalizable construct). Moreover, their basic definition of confidence raises concern whether they are actually trying to tap the construct of self-efficacy. They defined confidence as, "perceived [assuredness] in competence, skill, or ability" (p. 256). This definition conceptually mirrored that of Bandura's (1997) notion of self-efficacy outlined previously. Shrauger and Schohn failed to address this overlap.

One confidence theory incorporating self-efficacy was proffered by Stajkovic (2006). The author proposed four domains of employee character that share a common latent bond of confidence. These domains were hope, self-efficacy, optimism, and resilience. Stajkovic (2006) defined confidence as "a certainty about handling something" (p.1209). This definition of degree of certainty was consistent with some

others (e.g., Merkle & Zandt, 2006), but lacked the specificity of perceived ability or skill offered by Shrauger and Schohn. Stajkovic commented that confidence is an inductive process; we draw conclusions about confidence based on outcomes.

Stajkovic (2006) outlined conceptual parallels between self-efficacy and the other three constructs in order to argue for an overarching confidence core. Self-efficacy was framed as an agent of change similar to hope and emphasized as a basic definitional facet of resilience. In essence, people with high self-efficacy show greater resilience to overcome obstacles. All of these constructs are a product of a combination of a core confidence that enables action, combined with actual skill and desire (motivation) to accomplish a given task. After reviewing 30 motivation theories, Stajkovic concluded that a higher-order confidence construct has yet to be adequately developed.

Conclusions on Existing Confidence Literature

Crucial distinctions arose when attempting to sort through the complexities of confidence theories. While Price's and Stone's (2004) declaration of the existence of a heuristic confidence judgment was in accord with some theories (e.g., Gigerenzer et al., 1991), evidence of overconfidence yielding highest credibility or accuracy contradicted some other findings (e.g., Brewer et al., 2005; Cramer et al., 2009; Sporer, Penrod, Read, & Cutler, 1995). Inconsistent research findings render a uniform theory a problematic task. Several plausible explanations exist for the inability to produce a unifying theory of confidence. For example, the basic definition of confidence appears inconsistent. Cramer and colleagues only manipulated a series of verbal (e.g., tone of speech) and non-verbal (e.g., posture) cues hypothesized to reflect varying levels of confidence.   From a conceptual standpoint, Shrauger and Schohn (1995) provided a definition similar to self-

efficacy in which confidence reflects competence or skill level in a given context. Moreover, they posited confidence as a determinant of behavior as judged from previous outcomes. While definitions such as those by Shrauger and Schohn, as well as Stajkovic, were somewhat general, other definitions such as that of Slovenko (1999) were narrowly applied and reflected retrospective judgments of certainty that were byproducts of behavior rather than causes.

Confidence research is often influenced by varying physical environments and conceptual contexts such as organizational/business settings (e.g., Price & Stone, 2004; Stajkovic, 2006), the courtroom (e.g., Sporer et al., 1995; Cramer et al., 2009), and college/young adulthood (e.g., Shrauger & Schohn, 1995). Confidence may in fact be a context dependent phenomenon, especially in regard to how judgments of confidence are made and how they impact perceptions of credibility/accuracy. Change by setting may be a shared feature with self-efficacy. Overall, the proliferation of confidence-accuracy and confidence-credibility research has rendered the arrival of a uniform definition of confidence quite difficult.

Reviews of self-confidence and self-efficacy literature allow for several important distinctions. While both constructs are somewhat disputed in the literature, self-confidence appears to possess a more fragmented definition, and, as a result, inconsistent theoretical foundation. The importance of recognizing limitations of self-efficacy as a general versus domain specific construct should not be understated. We argue for the stance that it is indeed a domain-specific construct within testimony. However, the construct of "general self-efficacy" is utilized in the literature as well.

These constructs also differ in terms of basic components. While self-efficacy clearly possesses cognitive, affective, and behavioral facets influencing outcomes, self-confidence is largely viewed as affective and cognitive as a consequence of behavior. Thus, it appears that self-efficacy may be the target of interventions (e.g., psychotherapy, witness preparation), whereas self-confidence may be a byproduct of intervention. This supposition is not without opposition, however; some conceptions of self-confidence appear appropriate for shaping or training. That being said, as articulated in greater detail later, we advocate the stance that self-efficacy could be a target for psycho-legal intervention, while self-confidence may be assessed as an outcome indicator. This approach is consistent with other areas of self-efficacy building techniques.

Self-efficacy and Self-confidence in Witness Testimony

Self-efficacy has yet to be critically analyzed as a domain-specific belief related to testifying. To our knowledge, this is the first discussion of the notion of witness self-efficacy (WSE). We define WSE as one's self-perceived ability to actually perform the act of testifying in court. Because WSE is a new concept, there is little direct commentary or evidence differentiating confidence and WSE. We can, however, draw on literature from self-efficacy theory in general to shed light on this distinction.

WSE is one's perceived ability to testify in a clear and effective manner. This ability includes one's beliefs about keeping thoughts organized, communicating in a clear and confident way, conveying emotional control, and acting in a professional manner. The overarching construct of WSE incorporates cognitions, affect, and behavior. However, WSE is proposed to be a single latent construct. In short, the emotional, cognitive, and behavioral components are inter-correlated.

To clarify the nature of WSE, a comparison to Beck and colleagues' (e.g., Beck, 1972; Beck, Steer, & Brown, 1996) description of components of depression is helpful. Depression was conceived of as a theoretically derived characteristic reflected by behavioral (e.g., sleep disturbance), cognitive (e.g., suicidal ideation, hopelessness), and affective (e.g., sadness) manifestations. WSE functions much in the same way; there are observable behavioral (e.g., posture, eye contact), cognitive (e.g., organization of thoughts), and affective (e.g., nervousness) representations of the underlying WSE construct.

This conception of WSE is congruent with Bandura's (1997) discussion of general self-efficacy, as well as with narrowly defined types of self-efficacy such as self-defense (Ozer & Bandura, 1990) and social self-efficacy (Sherer et al., 1982). Drawing on the links between confidence and self-efficacy, comparisons can be extended to witness confidence and witness self-efficacy. Witness confidence (WC) pertains directly to the degree of certainty in content and statements made on the stand. Furthermore, WC judgments are often made ex post facto; witnesses may justify their confidence level based on the actual outcome of testimony. WSE, on the other hand, is a belief that directly affects performance on the witness stand. Although it includes degree of certainty in ability to testify, WSE is more complex than WC because it is a malleable construct that impacts, and, in turn, is impacted by, cognitive and emotional factors related to testifying, as well as the act of testifying. WC does not directly target or influence testifying. Rather, it can be a judgment or perception based upon outcome of testimony.

These two constructs also differ in that WC does not target specific behaviors. Rather, as shown by Cramer, Brodsky, & DeCoster (2009), there are behavioral cues perceived as confidence that may result from level of WSE. WSE, however, addresses cognitive (e.g., organizing thoughts), emotional (e.g., remaining calm), and behavioral (e.g., consistent eye-contact) facets of testifying. WSE also originates from theoretically and empirically-supported conceptions of general, social, and teaching self-efficacy. However, the construct itself has yet to be validated. Literature on confidence offers a more fragmented definitional basis for WC when compared to WSE. WC does have more empirical data showing that it is a judgment made after testifying, but this information pertains mainly to raters' (e.g., mock jurors') judgments of a witness's confidence. Finally, the various manifestations of WSE (i.e. thoughts, feelings, and behaviors) provide practical uses for a target and method of witness preparation training outlined later. Because WC is a narrower construct (i.e. post-hoc cognitive judgment only), its practical implications are limited mainly as an indicator of witness credibility research (see Brodsky, 2004; Brodsky, Griffin, & Cramer, under review).

Broadly speaking, WSE is distinguished from confidence in that confidence is only cognitive and affective (e.g., Shrauger & Schohn, 1995); confidence has no tangible behavioral component in most conceptions. As a result, WSE provides a clear target for intervention in order to boost witness effectiveness. Increasing self-efficacy beliefs is a common approach to skills training programs (see for example Schunk & Zimmerman, 2007; Weitlauf et al., 2000, 2001).

Promoting witness self-efficacy and witness confidence through witness preparation

Although the conceptual general disparities between confidence and self-efficacy have been addressed above, one issue warranting further attention is practical application for trial consultation. Witness testimony offers a fruitful backdrop in which to make use of knowledge of WC and WSE. In this section, witness preparation is defined, and an existing framework for the practice is reviewed. Then, WC and WSE is analyzed for potential enhancement of current witness preparation practices. Overall, their usages differ as well; cues of WC offer observable targets for intervention, whereas WSE serves as an underlying cognitive mechanism to build through various strategies articulated in the self-efficacy literature.

Boccaccini (2002) defined witness preparation as a process in which a witness "meet[s] with an attorney or witness preparation specialist before trial to review, discuss, and sometimes modify the substance and delivery of their anticipated testimony" (p. 161). Witness preparation specialists are often social scientists versed in verbal and non-verbal communication. As such, this process is focused on enhancing effective techniques toward the end of calm, persuasive testimony (Neal, 2009). Although lay persons often misconstrue the ethics behind witness preparation, this type of training is both commonly used and ethically sound from a legal standpoint. The purpose of witness preparation is not to train witnesses in deception tactics; rather, it is aimed at conveying a clear, understandable presentation style to members of the court.

Brodsky (2004) offered a succinct discussion of the Persuasion Through Witness Preparation model (PTWP; Boccaccini, 2002; Boccaccini & Brodsky, 2003) employed as a framework for witness preparation research. PTWP uses initial videotaped testimony as a baseline of testimony delivery for a witness. After detailed discussion, the witness

and researcher collaborate to implement effective delivery techniques. Following sufficient practice, the witness is taped again for the purposes of comparison to the original video to assess changes in effectiveness. PTWP research can incorporate measures of witness credibility, nervousness, and rater agreement to examine the effectiveness of witness preparation training.

The discussion now turns to WC cues (Cramer et al., 2009) as targets for training and as indicators for self-efficacy enhancement strategies discussed below. Cramer, Brodsky, & DeCoster (2009) investigated verbal and non-verbal cues associated with persuasive testimony. Cues were drawn from work across areas of psychology such as speech content and styles (e.g., O'Barr, 1982; Thomas & McFayden, 1995), expert testimony (e.g., Brodsky, 1991, 2004) and witness preparation (Boccaccini et al., 2003, 2005). They developed three scripts of mock expert testimony based on a Krauss & Sales (2001) article that compared types of expert testimony in capital sentencing cases. Each of the scripts portrayed differing degrees of expert witness confidence (low, medium, and high) based on the following behaviorally defined groupings:

Low Confidence*:* Quivering tone of voice, dysfluencies in speech, vacillating pace of speech, self-corrections, breaks in the flow of words**,** postural awkwardness**,** fixed eye contact**,** saying "you know" to seek assurance, asking for repetition of questions, and signs of anxiety and nervousness.

Medium Confidence: Moderate and stable tone of voice, clarity in speech**,** moderately paced speech, willingness to acknowledge a degree of certainty ("I am reasonably certain"), smooth narrative statements**,** good posture and straight back**,** comfort and poise**,** consistent eye contact**,** hears accurately and responds accordingly.

High Confidence: Loud and strong tone of voice, assertive speech and mannerisms, rapidly paced speech, *always* and *all* statements ("I am certain"), good posture/leaning forward, high fluency of speech.

The behaviorally defined gradations of confidence reflect theoretically or empirically-based cues related to confidence. Hence, they do not reflect WC per se; rather, they reflect perceptions or judgments of WC. Overall, a curvilinear relation between confidence cues and perceptions of credibility was found, such that the medium level of confidence yielded the highest credibility ratings. This study yielded witness confidence-related behavioral targets for witness preparation. Indeed, several of these had been empirically validated earlier as targets of witness preparation by Boccaccini and colleagues (2003, 2005). Consultants working within the PTWP model can aim persuasive testimony development at the list of behaviors connoting medium confidence. These include an upright posture, consistent eye contact, and willingness to admit a degree of uncertainty in responses.

Although WC cues serve the role of outcome indicators, WSE provides a mechanism through which a witness can build testifying skills and effectiveness. In his seminal work on witness preparation research, Boccaccini (2002) advised that new methods for witness preparation are needed. The integration of self-efficacy enhancement techniques with the PTWP framework addresses this need.

We now turn to literature on increasing self-efficacy beliefs (e.g., Bandura, 1997; Crain, 2005; Ozer & Bandura, 1990; Schunk & Zimmerman, 2007; Tams, 2008; Yudowitch, Henry, & Gutherie, 2008) as a conceptual extension of the PTWP model. Bandura (1997) outlined four empirically-supported methods for development and

adjustment of self-efficacy beliefs. They are actual performance of a behavior, observation of someone performing a behavior, verbal persuasion, and physiological signs. In a basic sense, a person arrives at self-perception of efficacy by actual attempts to perform a behavior. If a person succeeds, his or her self-efficacy may be posited to increase, and vice versa. In terms of vicarious influences, we judge our self-efficacy in part by others' successes and failures; if we observe a model succeed at a particular task we are more likely to believe we can reproduce such successes. Verbal persuasion operates via positive reinforcement from an observer by boosting a person's belief in increased likelihood of success performing the task at hand. Finally, individuals often draw on internal physiological cues or arousal states to judge their levels of nervousness, confidence, or competence. Arousal cues associated with negative mood states foster negative self-efficacy beliefs.

Each of these concepts either maps on to existing PTWP procedures or offers a complement for use in witness preparation. Consultants can draw on all four of these social learning mechanisms of self-evaluation to improve witness self-efficacy and performance. For example, as persons attain more experience on the witness stand, either in actual trials or in mock preparation, they may begin to draw on these actual experiences in order to develop a strong sense of efficacy on the stand (attempt to perform behavior). The PTWP model already addresses this technique through repeated practice. We suggest several repetitions with guided feedback whenever possible in order to maximize experience and reduce anxiety.

The education literature also affords some insight into fostering high self-efficacy beliefs and performance capabilities in a format of graduated practice. For example,

Schunk & Zimmerman (2007) expound upon self-efficacy literature by outlining a stepwise social-cognitive model of building skills. Their perspective suggests that individuals build skill through the steps outlined by Bandura's approach (e.g., observation, guidance, feedback). The participants then internalize the skill, thereby demonstrating mastery. Only after this process occurs can the skill be utilized in varied circumstances. Applied to witness testimony, PTWP can be used to teach testimony delivery skills. After the witnesses demonstrate mastery under uniform conditions, they can be exposed to changes in order to generalize testimony skills across styles of questioning, settings, and emotional states.

Potential witnesses may also observe an effective model testify successfully and, in turn, incorporate this success by believing they can mimic the behavior (observance/modeling). In essence, the observing witness thinks "If he or she did it, so can I." Bandura (1997) pointed out that modeling is best accomplished when the observer watches someone of similar skill level accomplish a task. Therefore, the witness being training within PTWP may benefit from watching the prepared testimony of a matched model (i.e., lay person watching another lay person, expert watching another expert). Moreover, use of modeling for witness preparation requires attention to basic tenets of the modeling process: attention, retention, motivation, and reproduction (Bandura, 1997). If trainees do not possess the minimal requisite abilities or motivation to attend to, retain, and produce effective testimony skills, they will be unable to build high WSE and will perform no better on the stand. Therefore, an integrated PTWP-WSE approach may apply only with witnesses deemed capable of learning via modeling.

A witness's self-efficacy can also be bolstered in the form of reinforcement in witness preparation training, or from positive feedback from mock jurors in trial simulations (verbal persuasion). PTWP modeling can use mock juries or expert raters to provide verbal reinforcement to enhance motivation and belief in one's ability to testify. Likewise, as is suggested in the PTWP model, videotaped feedback can be used to highlight witness successes in learning and applying testifying skills. The self-efficacy based approach to building reading skills offers a compelling example of how reinforcement can be combined with direct observation and modeling (Yudowitch et al., 2008). In short, Yudowitch et al., described a guided approach to building self-efficacy in reading that entailed the following: a) focus on content that can be handled by the trainee, b) establishment of graded, realistic goals, and c) practice of these skills with reinforcement. Extrapolation to witness preparation should focus on a manageable number of skills with graded goals and reinforced practice to maximize witness self-efficacy and performance.

Finally, witnesses can draw conclusions from monitoring physiological cues on the stand such as sweating, steadiness of voice, and muscle tension to self-assess effectiveness their presentation on the stand (that is, through the use of bodily cues). Doing so through practice and training in a variety of settings may help the witness and consultant gauge readiness to testify. For instance, witness training may begin in a private office until physiological cues suggest comfort. Then, the witness may testify in a mock courtroom, or eventually an actual courtroom. Repeated monitoring of physiological cues while on the stand can help assess the state of WSE for the person being trained. Moreover, simple relaxation techniques such as diaphragmatic breathing

can be applied on the stand in order to monitor and control physiological responses, thereby potentially offering another source of high self-efficacy beliefs.

The fact that WSE possesses affective, behavioral, and cognitive components provides three areas in which to apply the above strategies. From an emotional standpoint, aiding a witness in managing negative emotions like self-doubt or anxiety may help raise low WSE. Behaviorally speaking, techniques such as observation of videotaped feedback can enable a witness to mimic and demonstrate control of successful testimony delivery skills (e.g., posture, tone of voice). Finally, many WSE-based interventions are geared toward improving a witness's schema about their ability to testify (e.g., provision of positive verbal feedback).

A word of caution is necessary for interested parties using this theoretically guided framework for witness preparation. Although there is substantial evidence that self-efficacy is a potent agent of change, it has yet to be formally researched as it applies to witness preparation. Therefore, trial consultants should draw on information from this section with the knowledge it may have limited utility in externally valid settings such as the courtroom. Research should be undertaken to evaluate this model.

Validation research could follow a stepwise progression. First, a measure of witness self-efficacy should be developed in accordance with principles set forth across areas of on self-efficacy scale literature. Mock witnesses could be put into a variety of scenarios in which they must testify in a courtroom scenario. Though lab research has limitations, the simplicity of mock witness and mock juror research offers an effective manner in which to gather initial validity data for a scale measuring the construct of WSE. Convergent and divergent validity would be provided by mock witnesses.

Additionally, mock jurors could offer predictive validity in the form of commonly used dependent measures suggesting witness effectiveness (e.g., credibility, believability). Once these steps are taken, scale development can be replicated with more externally valid samples (i.e., persons who testify in court) such as police officers and expert witnesses.

Conclusions

Self-efficacy and self-confidence are both constructs needing conceptual clarification. Both pertain to self-perceptions, display varying levels of definitional disagreement, and show theoretical and applied usage in the psycho-legal arena. However, self-efficacy is arguably a more potent determinant of behavioral activation and change, thereby offering a clearer target for preparation. We have articulated the nature of WC and proposed the concept of WSE. Although this discussion represents a new extension of SET to the courtroom, WSE is untested. Empirical work should compare WC and WSE for distinctions outlined in the present paper. Finally, both constructs possess potential value when carefully integrated into the PTWP model.

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Table 1

Comparisons of Self-Efficacy, Confidence, Witness Self-Efficacy, and Witness Confidence

Factor	Self-Efficacy	Confidence	Witness Self-Efficacy	Witness Confidence
Definition	Affirmation of ability *and* strength of belief	*Only* degree of certainty in outcome	Belief in actual ability to testify and agent of change for testimony	Belief in degree of certainty in responses on the stand
Components	Behavioral, cognitive, and affective	Cognitive and affective (Inconsistent on behavioral)	Behavioral, cognitive, and affective	Cognitive and affective
Target	Specific behaviors prior to action	Judgments resulting from action	Empirically-supported efficacious behaviors	Self or other judgment of effectiveness on the witness stand
Theoretical Basis	Social-Cognitive and Self-Efficacy Theories; primarily viewed as domain-specific	Fragmented; primarily viewed as a general construct	General, social, and teaching self-efficacy principles applied to the law	None
Empirical Support	Considerable amount across areas	Considerable amount across areas	One unpublished study	Many studies based on raters judgments of witness confidence
Utility	Belief system acting as agent of change; can be a target of intervention	Construct that results from intervention	Potential measure and target for witness preparation training	Measure and target for witness credibility research