

Forensic Psychologists Should use the Behavioral Experiment to Facilitate Cognitive Change
in Clients who have Offended

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Abstract

A key technique associated with effective cognitive behavioral therapy (CBT) is the behavioral experiment (BE). Within mainstream clinical psychology, the overall aim of the BE is to treat clients' problematic beliefs as a set of hypotheses to be tested. In this review, I examine the BE as a treatment technique and argue that widespread implementation of the BE could significantly improve CBT-based forensic psychological practice. I examine contemporary conceptualizations of cognition within forensic psychology as well as commonly used treatment techniques for instilling cognitive change. This analysis highlights that although some experiential techniques are used in forensic psychology to facilitate cognitive change (e.g., schema therapy), there is still a key focus on rational reasoning techniques such as Socratic questioning, psychoeducation, and thought monitoring. In this paper, I argue that current methods of instigating cognitive change within offending populations neglect key strategies necessary to generate convincing cognitive change. I offer the BE as a convincing and effective technique for facilitating change in problematic offender cognition at both the rational and experiential level. I offer several recommendations for how to design and incorporate BEs into forensic practice and provide examples of BE use in forensic settings.

Key words: Offender, Cognition, CBT, Behavioral Experiment

Forensic Psychologists Should use the Behavioral Experiment in to Facilitate Cognitive
Change in Clients who have Offended

Forensic psychologists tasked with rehabilitating offenders hold a difficult and often unenviable role. Every forensic psychologist has come across clients who hold highly problematic beliefs about themselves, crime, violence, or their victims that appear impervious to change. Cognitive Behavioral Therapy (CBT) is the effective treatment method of choice for those aiming to adapt such cognitions (Hall, 1995; Hanson et al., 2002; Landenberger & Lipsey, 2005; Pearson, Lipton, Cleland, & Yee, 2002). Yet many CBT techniques imported from mainstream clinical psychology by forensic psychologists (e.g., thought monitoring) fail to adequately convince the client to change their beliefs. Put simply, clients sincerely believe in the validity of their problematic cognitions meaning that even sophisticated and rational consideration of alternative prosocial cognitions is unlikely to instigate genuine cognitive change (Marshall et al., 2011; Pfäfflin et al., 2005). In mainstream clinical psychology, however, CBT psychologists dealing with some of the most highly entrenched and problematic cognitions implement an effective technique for facilitating adaptive cognitive change that is little used by forensic psychologists: that of the *Behavioral Experiment* (BE). In short, BEs may be defined as:

...planned experiential activities, based on experimentation or observation, which are designed by patients in or between cognitive therapy sessions. Their design is derived directly from a cognitive formulation of the problem, and their primary purpose is to obtain new information which may help to:

- test the validity of the patients' existing beliefs about themselves, others, and the world
- construct and/or test new, more adaptive beliefs...

(Bennett-Levy et al., 2004, p. 8)

In other words, the overall aim of the BE is to treat the client's problematic beliefs as a set of hypotheses to be tested. Using Bennett-Levy et al.'s definition—which has been widely accepted by professionals (Farmer & Chapman, 2008)—I will argue that there is a strong need for those working with offenders to use the BE as an effective technique for instilling cognitive change. First, however, I will examine contemporary conceptualizations of cognition within forensic psychology as well as current techniques used to instill cognitive change. Following this, I will examine the BE as a general treatment technique within mainstream clinical psychology and examine how the BE could significantly improve CBT-based forensic practice. In order to increase the clarity and focus of this paper, I will use the term cognition(s) to refer to, “*structure of mental knowledge and ... associated thoughts, perceptions, understanding and reasoning*” (Gannon & Wood, 2007, p.71). In line with Fishbone and Ajzen's (1975) *theory of reasoned action* I will use the term *belief* to refer to basic knowledge that an individual holds about a situation, object, or set of circumstances and the term *attitude* to refer to cognition holding a strong affective element (e.g., sentiments and values). Underlying all of these terms is the assumption that cognition—in the form of beliefs and attitudes—plays a key role in influencing behavior. As such, I will append the term ‘offense-supportive’ to describe cognition that appears to facilitate or maintain offending behavior. In this paper the term forensic psychologist will be used to refer to individuals who are trained and registered to conduct independent psychological practice in correctional or prison settings as well as mental health facilities. Finally, unless otherwise stated, I focus my discussions on offending committed by adult males since the majority of research examining offense-supportive cognition has been conducted with this group. However, many of the concepts and techniques will apply equally to juvenile and female offender populations.

Conceptualization of Cognition within Forensic Psychology

Over the past three decades the concept of cognition has gradually been used to help explain the facilitation and maintenance of a variety of offending behaviors (Abel et al., 1984; Gilchrist, 2009; Ó Ciara & Gannon, 2010; Polaschek, Calvert, & Gannon, 2008; Polaschek & Gannon, 2004; Ward & Keenan, 1999). However, unlike the concept of cognition within clinical psychology, early cognitive explanations of offending—in particular sexual offending—were subject to widespread conceptual problems (see Gannon & Polaschek, 2006; Maruna & Copes, 2005). This may have stemmed from the fact that offenders minimize and defend their offending behavior (Gannon & Polaschek, 2006). Consequently, minimizations and externalizations were easily mislabeled as more longstanding cognitions. Recent research, however, has indicated that externalizing one's behavior (e.g., 'It just happened') or citing transitory reasons for one's behavior (e.g., 'I was high on drugs') does not increase future offending risk (Dean et al., 2007; Marshall, Marshall, Serran, & O'Brien, 2011; Maruna, 2001; Maruna & Mann, 2006).

Over the past decade, a healthy focus has ensued in most areas of offender cognition. Researchers across all offending behaviors have now identified many of the longstanding and pervasive cognitions that facilitate and maintain offending (Gannon & Polaschek, 2006; Maruna & Mann, 2006; Ó Ciardha & Gannon, 2010; Polaschek, Calvert, & Gannon, 2009). This has enabled researchers to more clearly pinpoint etiological cognitions likely to require modification in treatment (Andrews & Bonta, 2010; Graham & Van Diemen, 1999; Hanson & Morton-Bourgon, 2004; Helmus, Hanson, Babchishin, & Mann, 2012; Mills, Kroner, & Hemmati, 2004; Simourd, & Olver, 2002; Simourd & Van De Ven, 1999). Below, I outline the key cognitions identified as important targets for treatment as suggested by empirical research and theory. I use the risk need responsivity model (RNR; Andrews & Bonta, 2010)—widely regarded as the “orthodox position concerning rehabilitation” (Ward, Collie,

& Bourke, 2009, p.299) and the strengths-based Good Lives Model (Ward & Gannon, 2006) to frame important aspects of offender cognition. Within the RNR three key principles are specified as being required to optimize treatment effectiveness. First, treatment program intensity should be matched to the *risk* of the offender. Second, treatment should focus on *criminogenic needs* associated with reductions in recidivism. Related to this, Good Lives Model proponents have proposed that both criminogenic and ‘non criminogenic’ cognitions should also be targeted in treatment if—like criminogenic needs—they appear to block the client’s ability to lead a pro-social and meaningful life (Marshall et al., 2011; Willis, Yates, Gannon, & Ward, 2013). Finally, the third principle states that treatment should attend to issues of internal *responsivity* (i.e., aspects about the offender such as mental health problems or low self esteem that may potentially block treatment commitment or key benefits obtained from treatment).

Cognitions Indicative of Risk/Criminogenic Need

Longstanding cognitions in the form of offense-supportive attitudes and beliefs have been identified as key for predicting offending and repeat offending (Andrews & Bonta, 2010; Hanson & Morton-Bourgon, 2005; Hanson & Scott, 1995; Helmus et al., 2013; Mills, Kroner, & Hemmati, 2004; Simourd & Olver, 2007; Simourd & Van De Ven, 1999; Thornton, 2002). Research with sexual offenders shows that a high level of emotional identification with children or attitudes that sex with children is undamaging or even desirable elevates risk and requires treatment prioritization (Dean et al., 2007; Hanson, 2006; Hanson & Morton-Bourgon, 2005; Helmus et al., 2013; Marshall, Marshall, Serran, & O’Brien, 2011). Similarly, attitudes indicating general antisocialism, hostile perceptions of women, sexual entitlement, and viewing women as untrustworthy are all areas of offense-supportive cognition that increase risk of sexual reoffending (Hanson & Harris, 2000; Langton, 2007; Marshall et al., 2011). For non-sexual offenders research shows that attitudes

indicating identification with criminal associates, dismissal of law and convention, antisocial intentions, and entitlement play a key role in various offending behaviors (Andrews & Bonta, 2010; Mills, Kroner, & Hemmati, 2004; Simourd, 1997; Simourd & Olver, 2002; Simourd & Van de Van, 1999). Furthermore, tolerating or normalizing violence, identifying with other criminals, antisocial intentions, viewing oneself as being entitled to administer 'justice', or viewing other males as potentially violent, have all been linked to violent offending (Mills et al., 2004; Polaschek et al., 2009).

Cognitions Blocking a Prosocial 'Good' Life and/ or Responsivity to Treatment

There is likely to be significant overlap between cognitions that block an individual's ability to lead a satisfying prosocial life and those that impact upon a client's ability to connect with and respond to treatment (Andrews & Bonta, 2010; Looman & Abracen, 2013; Ward & Gannon, 2006). For example, problematic cognitions relating to self esteem (e.g., "I am disliked by other people", "I fail at everything I do") will influence an individual's ability to gain and maintain a satisfactory relationship (a criminogenic need; Andrews & Bonta, 2010; Hanson & Morton-Bourgon, 2005; Mann, Hanson, & Thornton, 2010) and also impede an individual's ability to engage in treatment through forming a cohesive bond with group members. A variety of cognitions can impact upon life quality and/ or responsivity to treatment including those relating to trauma (Clark, Tyler, Gannon, & Kingham, 2014; Gray et al., 2003; Latessa, Johnson, Listwan, & Koetzle, 2014; Looman & Abracen, 2013), mental illness (e.g., psychoses, anxiety disorders, clinical depression; Latessa et al., 2014; Looman & Abracen, 2013), shame and associated low self-esteem (Marshall et al., 2011; Marshall et al., 1999), motivation (Latessa et al., 2014; Yates, 2009), and mistrust of professionals (Gannon & Ward, 2014). Such issues may exacerbate criminogenic needs associated with offending behavior (e.g., self management, inappropriate sexual arousal, problems establishing intimacy, Andrews & Bonta, 2010; Hanson & Morton-Bourgon, 2005) and increase treatment

drop out (see Table 1 for examples of cognitions falling into this area). Research suggests that offenders who fail to connect with, and drop out of treatment, are highly likely to recidivate (Marques et al., 2000; Porporino, 2010). Thus, even the best treatment will fail if such factors, and the cognitions supporting them, are not addressed adequately prior to, or as part of treatment (Kennedy, 2000). As such, these cognitions may ultimately be viewed as offense-supportive.

TABLE 1 ABOUT HERE

Current Techniques for Adapting Offense-Supportive Cognition

A plethora of publications are available for forensic professionals who wish to learn contemporary methods of adapting cognition. The focus has generally been on the adaptation of cognitions indicative of risk or criminogenic need (although see Marshall et al, 2011 for an exception). Here, CBT based cognitive restructuring is generally viewed as gold standard (Murphy, 1990; Marshall et al., 2011). As an overarching term, cognitive restructuring refers to the general technique of collaboratively guiding clients to: identify the existence and operation of offense-supportive cognition, assess the origins and usefulness of such cognition, and generate replacement alternative cognitions (Briggs & Kennington, 2006; Murphy, 1990; Langton & Marshall, 2000; Ruge & Bonta, 2014). Bennett-Levy et al. (2004) argue that theories such as the Interacting Cognitive Systems Model (Teasdale, 1997; Teasdale & Barnard, 1993) and the Cognitive–Experiential Self-Theory (Epstein, 1994; Epstein & Pacini, 1999) highlight two distinct information processing systems: that of the logical and rational verbal system associated with propositional processing, and that of the emotional, non-verbal, and holistic system associated with implicational processing. Verbal cognitive restructuring impacts upon beliefs at the intellectual or *propositional* level whereas

experiential cognitive restructuring facilitates genuine belief changes at the deepest *implicational* or schematic level (see Bennett-Levy et al., 2004).

The cognitive restructuring techniques utilized and published by forensic psychologists are imported from general clinical psychology and include rational reasoning techniques such as Socratic questioning, psychoeducation, thought records, pros and cons analyses (i.e., propositional level processing; Dean et al., 2007; Marshall et al., 2011; Kroner & Morgan, 2014; Seeler, Freeman, DiGiuseppe, & Mitchell, 2014) as well as therapeutic approaches and techniques aimed at the deep experiential level such as role play, behavioral rehearsal (i.e., implicational level processing; Dean et al., 2007; Mann & Shingler, 2006; Marshall et al., 2011; Ross & Ross, 1995; Walters, 2014), and schema therapy (Drake, Ward, Nathan, & Lee, 2001; Keulen-de Vos, Bernstein, & Arntz, 2014; Mann & Shingler, 2006). Below, I briefly outline each of these key therapeutic approaches and strategies.

Rational Techniques: Propositional Processing

Socratic Questioning

The Socratic questioning style stems from cognitive therapy (see Beck, Rush, Shaw, & Emery, 1979). It refers to questioning intended to promote intellectual analyses of problematic thinking styles through encouraging clients to introspect on the validity of deeply held beliefs and attitudes (Dean et al., 2007; Overholser, 1993). Socratic questions might include, “What other reasons could explain why your probation officer asked you to leave her office?”, or “For what other reasons might your victim have looked/stared at you?” Here, Socratic questioning is used as a form of guided discovery in which the overall aim is for the client to generate their own alternative cognitive perspectives (Dean et al., 2007; Tong & Farrington, 2008; Ware & Bright, 2008). In other words, it is up to the client to generate their own cognitive change based upon their own cognitive discoveries and reflections.

Education

Many treatment providers, to a large extent, provide offending clients with alternative cognitive perspectives in the form of psychoeducation, witness or victim statements, videos, or special guest speakers (Drake et al., 2001; Gannon, 2014). For example, a group on firesetting behavior may invite local fire safety officers to attend the group to provide alternative perspectives on the controllability and harmfulness of fire (see Gannon et al., 2015), a therapist may offer education on why laws regarding consent are important (McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2009), or individuals with previous experience of sexual abuse or violence may be invited to group to share offense impact information from their perspective (see Briggs & Kennington, 2006).

Thought Records

Most forensic programs incorporate some type of thought recording or monitoring activity when aiming to instigate cognitive change (see Apsche, Evile, & Murphy, 2004; Briggs & Kennington, 2006; Gannon et al., 2015; Hollin & Palmer, 2006; Morin & Levenson, 2002; Tafrate & Mitchell, 2014). Typically, thought recording involves the offender documenting problematic or offense-supportive beliefs and attitudes either within group work or independently outside of group work. The offending client is typically asked to analyze the situation to examine possible evidence for and against their viewpoint and to generate alternative perspectives wherever possible. In other words, clients are encouraged to use their thought records as a tool with which to rationally restructure their own problematic attitudes. To illustrate, Seeler et al. (2014) provide practitioners with a series of worksheets aimed at encouraging antisocial offenders to study their thought patterns and modify these appropriately. One of these worksheets requests clients to (1) reflect upon any problematic thinking they have experienced, (2) describe their key thought(s), (3) generate evidence to counter the thought(s), and (4) generate a statement logically consistent with (3) that represents a more accurate substitute thought. Not only do thought records highlight the

situations in which problematic thoughts are most likely to occur but they also represent a key stepping stone towards recognizing alternative perspectives and thus challenging the client's current perception of their surrounding world. In some variants, thought records may be used to generate a logical cost/benefit or pros and cons analysis of deeply held problematic beliefs and attitudes versus substitute alternatives.

Non-Rational Experiential Techniques: Implicational Processing

Role Play and Behavioral Rehearsal

Numerous authors have highlighted role-play as representing an effective experiential method for instigating cognitive change in offending clients (Bishop, 2014; Dean et al., 2007; Gannon et al., 2010; Mann, Daniels, & Marshall, 2002; Marshall et al., 2011; Stinson & Becker, 2013). Within role-play, clients are encouraged to experience differing viewpoints as well as 'try out' or behaviorally rehearse new ways of thinking and behaving (Bishop, 2014; Marshall et al., 2011). Various role-play techniques may be adopted by therapists according to the nature of the client group or individual in question. A common approach for instigating cognitive change revolves around requesting the client to write a hypothetical letter to their victim (Beckett, 1994; Gannon et al., 2011) or switch between playing themselves and their victim in a dual person role play (Mann et al., 2002; Stinson & Becker, 2013; Webster, Bowers, Mann, & Marshall, 2002). It can also be helpful to ask offending clients to act as 'self' and 'other' in new hypothetical interactions in order to aid them to understand how their beliefs, attitudes, and behaviors may be experienced by others.

Schema Therapy

In recent years, schema therapy has begun to permeate forensic psychology to varying degrees. Within general clinical psychology, schema therapy is deemed distinct from CBT since it focuses on (a) the *development* of schema and associated problems, (b) addressing problems in the relationship between client and therapist as a result of problematic schema,

and (c) the implementation of experiential strategies to enable clients to engage with their schema-induced emotions and produce long-lasting cognitive change (Keulen-de Vos, Bernstein, & Arntz, 2014; Rafaeli, Bernstein, & Young, 2011). Schema therapy—as a therapeutic model and technique—requires considerable clinical skill and training (Dean et al., 2007). Consequently, the degree to which schema therapy has been conceptualized and implemented within specialist forensic fields has been highly variable. Some forensic professionals have conceptualized offenders' offense-supportive criminogenic cognition as stemming from overarching schemas rather than disconnected and separate beliefs and attitudes (Drake et al., 2001; Ward, 2000; Ward & Keenan, 1999).

However, there has been little emphasis on how schema therapy might relate to cognitions impeding the client's ability to lead a pro-social life and/or relate to treatment responsivity. Furthermore, descriptions of how treatment might proceed using schema therapy are typically brief; involving rational questioning, role-play, and basic self observation (Dean et al., 2007; Drake et al., 2001). In their description of schema therapy for child sexual offenders, Dean et al., briefly cite the BE as being a powerful technique for instigating change. However, no further information is provided. Furthermore, in a particularly sophisticated and recent example of schema therapy applied to aggressive and personality disordered clients, Keulen-de Vos et al. (2014) emphasize the importance of formulating each client's case in terms of Young's schema theory (Young, Klosko, & Weishaar, 2003) and propose the existence of several 'forensic schema modes' to account for antisocial and aggressive behavior. Keulen-de Vos note the importance of using longstanding CBT techniques (e.g., schema or thought diaries) to highlight thinking patterns but accentuate experiential methods such as chair-work and role play (to experience and highlight different schema modes) or imagery rescripting (to cognitively rescript the outcomes of previously problematic situations) as being the gold standard for establishing genuine cognitive change.

Although BEs are not specifically mentioned, presumably they would represent one key experiential technique for establishing cognitive change.

Effectiveness of Treating Offense-Supportive Cognition

There is little specific evidence within the forensic domain that current techniques for instigating cognitive change—such as cognitive restructuring or schema therapy—are having the desired effects (Gannon & Polaschek, 2006; Marshall et al., 1999; Marshall et al., 2011). However, numerous studies show that specialized CBT leads to reductions in attitudes supporting child sexual offending behavior (Beech et al., 1998; Bumby, 1996; Watson & Stermac, 1994) and antisocial attitudes supporting a range of offending behaviors (e.g., Cullen, Clarke, Kuipers, Hodgins, Dean, & Fahy, 2012; Gannon et al., 2014; Valliant & Antonowicz, 1991; Yessine & Kroner, 2004). Nevertheless, while reductions in offense-supportive attitudes reported across these studies are positive, associated effect sizes are generally modest suggesting that reductions in offense-supportive cognition could be further improved (see Beech et al., 1998 for one exception).

In recent years, forensic professionals have noted that a rational consideration of alternative and prosocial cognition may not be enough to instigate genuine cognitive change (Marshall et al., 2011; Pfäfflin, Böhmer, Cornehl, & Mergenthaler 2005) and that therapists need to put much more emphasis on the behavioral elements of CBT (Fernandez, Shingler, & Marshall, 2006). Within forensic psychology, in particular, therapists can easily fall into the trap of failing to undertake complex experiential techniques associated with cognitive restructuring due to the challenging nature of both their client group and the risk aversive context in which they work (see Gannon & Ward, 2014). Consequently, psychologists can find themselves developing relapse prevention plans replete with useful distractions and behavioral components (e.g., watching television, going to the gym, relaxation techniques) that do little to reformulate or correct the faulty belief system associated with offending

behavior (see also Wells, 1997). Thus, current methods of instigating cognitive change within offending populations appear to be missing key strategies necessary to convince offenders that alternative viewpoints and cognitions represent realistic or truthful alternatives. In the following sections I present the BE as an effective technique that is able to subsume many of the current techniques used to instigate cognitive change in offenders and in doing so facilitates cognitive change at *both* the propositional and implicational level (see Bennett-Levy et al., 2004).

The BE

Origins

The BE is associated with Cognitive Therapy which evolved from Beck's work in depression (Beck, 1967; Beck, Rush, Shaw, & Emery, 1979). Beck et al. proposed that cognitive patterns of negativity (e.g., personalizing external events to oneself in the absence of objective connection) functioned to consolidate and maintain faulty information processing associated with depression. In terms of assisting the depressed client, Beck et al. noted that the client's negative cognitions were highly ubiquitous. Put simply, it seemed impossible for the therapist to simply talk the client 'out' of their negativity. Instead, Beck et al. proposed that a variety of techniques—such as Thought Records—could be used by the therapist to assist the client towards managing and more accurately appraising their negative cognitions. Amongst the techniques described by Beck et al. included BEs which he stated could gradually shift the client's view regarding the soundness of their negative cognitive appraisals.

Following the successful application of the cognitive model to depression, professionals began applying it to anxiety (e.g., Clark, 1986; Clark & Wells, 1995; Salkovskis, 1985; Wells, 1995; see Bennett-Levy et al., 2004). Here, BEs came to be cited as

a basic therapeutic technique for testing the reality of anxiety-provoking beliefs, and adapting affect (Wells, 1997). In his pioneering text examining anxiety, Wells (1997) describes how testing the reality underlying anxiety-provoking beliefs collaboratively and in-vivo with clients provides critical education for the generation of effective replacement beliefs. Wells (1997) also stressed the importance of using BEs early in therapy to speed up therapeutic change.

Professionals have now identified the important features of the BE as being *experiential knowledge, decentering, emotional stimulation, the rehearsal of different behavior or plans, reflective learning, and the consolidation of new experiences in memory at varying levels* (Bennett-Levy, 2003; Bennett-Levy et al., 2004; Segal, Williams, & Teasdale, 2002). It is through these functional mechanisms that the BE appears to overcome the problem of intellectually knowing something to be true but not experiencing it as such (Bennett-Levy, 2003; Bennett-Levy et al., 2004).

Evidence Base

The BE is a highly significant component of effective CBT (Bennett-Levy et al., 2004; Clark, 1989; Farmer & Chapman, 2007; Harvey et al., 2004; Wells, 1997). For example, Westbrook et al. (2007) describe the BE as, “a CBT strategy which can be used to great effect in most if not all problems” (p. 129), Bennett-Levy (2003) notes that BEs are likely to be “more effective in actually giving alternative thoughts believability, and promoting therapeutic change.” (p. 263), and Beck (2011) concludes that “properly set up, behavioral experiments can be powerful agents of cognitive and emotional change (p. 200). In fact, Waller (2009) has suggested that therapy lacking the BE component may well have a reduced impact on clients. A number of studies have attempted to isolate the BE as a therapeutic technique and evaluate its effectiveness (Bennett-Levy, 2003; McManus et al., 2012; Tang & Harvey, 2006, McMillan & Lee, 2010). All have reported superior BE results.

To illustrate, in one study (Bennett-Levy, 2003), experienced practitioners ($n = 8$; 6 female) and students in cognitive therapy training ($n = 19$; 16 female) recruited in Australia were asked to implement and reflect upon their own use of thought records and BEs. Participants self-reported that—in comparison to thought recording—BEs were more influential in facilitating changes in both beliefs and behavior. General rather than specific examples of BE effectiveness were provided by Bennett-Levy. For example, one participant stated, “Everything else was great in terms of understanding, but behavioral experiments were actually the way I made a couple of changes” (p. 271). A key challenge identified for implementing the BE was anxiety. Participants reported that experiences of anxiety motivated them to avoid the BE. They also reported having difficulties identifying evidence to refute problematic thoughts once they were experiencing anxiety and felt that therapist support was crucial in order to implement the BE successfully. In a UK study examining community individuals diagnosed with sleep insomnia ($N = 48$; 27 female), Tang and Harvey (2006) found that those who engaged in a BE designed to highlight distorted sleep perceptions showed improved sleep onset latency estimates and significantly reduced anxiety and concern with sleep relative to non-BE sleep monitored individuals who diarized their sleep experiences. No qualitative descriptions of belief change or adaptation were examined in this study. Furthermore, the authors noted that this study was dissimilar to clinical BEs in the sense that participants were unaware of the purpose of the experiment. More recently, McManus et al. (2012) directly compared the effects of a single session of BE therapy versus thought record therapy amongst 91 non-clinical UK participants (49 female) experiencing subclinical irrational beliefs associated with hand washing (i.e., they indicated a 60% + belief that not washing their hands after using the toilet would result in them becoming ill). Participants in the BE condition were supported to test their belief through using the toilet and not washing their hands to see if they did, in fact, become unwell. Whilst both the BE

and thought record conditions were associated with an improvement in self reported beliefs (i.e., decreased quantitative conviction in the belief that “not washing your hands after going to the toilet will make you ill”) relative to the control condition, the BE instigated superior effects since improvements in the irrational belief were generalizable (e.g., they also positively influenced the belief that “Not washing your hands after going to the toilet will make *others* ill”) and occurred more rapidly. The authors of this study did not comment on any of the potential challenges of implementing the BE clinically. Finally, McMillan and Lee (2010) conducted a systematic review examining anxiety treatment studies that compared BEs with simple behavioral exposure techniques. Of the 14 best quality studies identified examining OCD ($n = 1$), panic ($n = 3$), social phobias ($n = 8$), or specific phobias ($n = 2$), McMillan and Lee’s review suggested that the BE was more effective than sole exposure techniques. However, the review authors note that their review was limited in the sense that they did not examine ‘grey’ studies.

Unsurprisingly, then, the BE is now recommended as a key therapeutic technique in contemporary clinical psychology texts (Farmer & Chapman, 2007; Grant, Mills, Mulhern, & Short, 2004; Hawton, Salkovskis, Kirk, and Clark, 1989; Westbrook, Kennerley, & Kirk, 2007) and is used as a therapeutic tool aimed at altering beliefs and attitudes associated with a wide range of clinical problems including eating disorders (Corstorphine, 2006), diabetes-related anxiety (Boyle, Allan, & Millar, 2004), insomnia (Ree & Harvey, 2004; Tang & Harvey, 2004), acquired brain injury (McGrath & King, 2004), Post Traumatic Stress Disorder (Clark, 1999; Mueller, Hackmann, & Croft, 2004), symptoms of psychosis (Close & Schuller, 2004), low self esteem (Fennell & Jenkins, 2004), and social phobia (Clark, 2001). Importantly, many of these clinical problems are highly likely to impede an offender’s ability to lead a pro social life or engage appropriately in treatment if left untreated. Thus,

application of the BE to these issues is likely to be particularly important within forensic settings.

Types of BE

Similarly to scientific theory testing, BEs take two preliminary forms: that of *experimental orientated theory testing* (i.e., manipulating factors to test specific theories) and that of discovery focused *information gathering* (i.e., exploratory surveys; Bennett-Levy et al., 2004; Westbrook et al., 2007). In experimental focused theory testing the aim is to develop robust predictions or hypotheses to be tested in relatively controlled circumstances (Bennett-Levy et al., 2004; Westbrook et al., 2007). For example, a client may be instructed to do something that they would not usually do to see if their predicted theory holds true (e.g., “If I stay in a room when I feel anxious I will stop breathing and collapse”). In some cases, however, clients may not hold clear hypotheses to test. Here, the client may need to ‘discover’ or generate testable hypotheses. In discovery focused information gathering, the client is encouraged to gather evidence to generate possible alternative beliefs. Bennett-Levy et al. (2004) provide the example of an individual experiencing worthlessness who may be encouraged by their therapist to observe what happens when they socially interact in a more open manner. Following this, the individual may begin to develop both a clearer statement relating to their distressing belief as well as more adaptive alternative cognitions. Following discovery focused BEs therapist and client can then begin generating a series of robust and testable predictions.

Professionals have noted one further notable dichotomy of BEs: that of active versus observational BEs (Rouf, Fennell, Westbrook, Cooper, & Bennett-Levy, 2004; Westbrook et al., 2007). In the former, the client is active in the BE through testing a prediction in order to discover new information. In the latter, the client uses observation to test a set of hypotheses (e.g., designing a survey to see what percentage of people feel ‘not listened to’ in social

situations) or in order to discover new information (e.g., watching a number of social interactions at a party to discover what happens).

Use of BEs in Forensic Settings

Given that the BE represents an empirically informed and commonly used technique for instilling cognitive change in clinical patients, it is surprising that this technique has not been explicitly adopted for widespread use in forensic settings (see Beech, Craig, & Browne, 2009; Briggs & Kennington, 2006; Craig, Dixon, & Gannon, 2013; Hollin & Palmer, 2006; Ireland, 2009). In fact, very few programs appear to explicitly cite the BE as a meaningful therapeutic tool (see RESOLVE; National Offender Management Service, 2013 for one exception). A small number of forensic professionals have cited the BE as representing one potential technique for changing offense-supportive cognition (Baima & Guthrie, 2014; Beech, Bartels, & Dixon, 2013; Dean et al., 2007; Langton & Marshall, 2000). However, Langton and Marshall note that applying such a technique within the forensic domain can be challenging. Clearly, then, professionals require further detail on the BE technique, the benefits of such a technique, and exactly how such a technique should be implemented. Perhaps most surprisingly, in the most comprehensive and valuable texts to date examining the application of CBT principles to forensic clients and offending behavior programs more generally (Hollin & Palmer, 2006; Tafrate & Mitchell, 2014), no explicit references are made to the BE as a therapeutic tool.

The Potential Value of the BE in Forensic Settings

Forensic psychology has been critiqued for failing to implement deeper level experiential techniques associated with behavioral psychology such as behavioral rehearsal and role play (Fernandez et al., 2006). The BE is one frequently overlooked technique that is

able to subsume both rational (i.e., propositional) and experiential (i.e., implicational) techniques to facilitate maximal belief and attitude change.

The BE enables psychologists to more readily facilitate believability to alternative non-problematic cognitions. This technique is likely to be of particular value in forensic settings where rational propositional approaches are likely to hold even less ‘change’ potential due to (1) a lack of motivation to engage with work that appears patronizing and ‘school like’, (2) a lack of trust in psychology professionals’ suggestions and proposals of alternative cognition (Gannon & Ward, 2014), and (3) the low reported verbal reasoning abilities of forensic populations (Bellair, McNulty, & Piquero, 2014; Jones, 2013). Importantly, the BE provides the forensic psychologist with a meaningful opportunity to develop the client’s sense of autonomy as well as a collaborative and trusting therapeutic relationship; a factor often lacking within forensic contexts yet highly associated with effective therapy (Ackerman & Hilsenroth, 2003; Beech & Hamilton-Giachritsis, 2005; Elvins & Green, 2008; Gannon & Ward, 2014; Marshall & Burton, 2010, Norcross, 2002, 2011). The BE also enables the forensic psychologist to engage in highly tailored evidence-based practice which has proved to be more effective in diminishing problematic behaviors—including criminal behaviors—than less tailored practice (Barlow, 2011; Beutler et al., 2011; Boswell et al., 2011; Johansson et al., 2012; Marshall, 2009; Marshall & Serran, 2004; Serran et al., 2003).

Planning and Undertaking BEs in Forensic Settings

Generally, the planning and commission of any BE comprises five key phases (Grant et al., 2004; Hawton et al., 1989; Wells, 1997; Westbrook et al., 2007). Across each of these stages, however, those working with forensic clients will need to consider the challenges and

problems faced when working in forensic environments (see Gannon & Ward, 2014). For example, it may not be possible to conduct BEs within the community unless the client in question resides in open conditions or holds some type of escorted leave privileges. In addition, it may take considerable creativity for psychologists to set up realistic BEs that do not breach forensic security.

In the first phase the client should be encouraged to engage in collaborative exploration and identification of the unhelpful cognition or overarching schema that requires investigation. As noted earlier, within forensic work, unhelpful cognitions are those deemed to be offense-supportive either because they are indicative of risk/criminogenic need (e.g., believing children desire or are unharmed by sex, viewing women as untrustworthy or malevolent, and tolerating or normalizing violence), or because they block the individual's ability to lead a pro social life and/or impede treatment responsiveness (e.g., views of self as worthless, or delusions associated with mental health problems). Thus, at this stage, it is critical that the psychologist holds a firm formulaic understanding of the client's offending and of the range of cognitive factors directly or indirectly contributing to the offending behavior. Numerous resources are available to support psychologists in this task (e.g., Grant, Townend, Mills, Cockx, 2008; Sturmey & McMurrin, 2011). What is crucial—in order to plan and undertake BEs—is that the psychologist and client hold a shared understanding of the range of cognitions facilitating and maintaining offending behavior as well as those potentially impeding treatment progression. Once this formulation has been developed, then client and psychologist can plan which cognitions should be immediately tested and in what order. In some cases, therapists will find that concentration of BE work on one key cognition will automatically soften or even alter other offense-supportive cognitions; making therapeutic efforts less intense as BEs proceed.

In the second phase, the client should be supported to translate the unhelpful cognition(s) into a tangible notion to be tested. For example, the client who states that they ‘just know’ that children are unharmed by sex with adults (a criminogenic belief) can be asked to describe in more detail how they have drawn this conclusion (e.g., “because I know that my victim is now grown up and has a family of his own”). Or, the client who experiences low self-esteem stating that they “just can’t” ask for their needs to be met by others—a cognition likely to impact upon factors such as relationship intimacy and treatment success—may be aided to develop a more precise and testable set of beliefs (e.g., “If I ask for my needs to be met by others then they will reject me”). At this stage, the client should be asked to rate how much they believe the unhelpful cognition to be true using a 0-100% scale (0 = Not at all, 100 = Totally True). This element is crucial since it provides information concerning the severity of the unhelpful belief and enables any improvements made in therapy to be measured against this initial rating.

In the third phase, the client should be encouraged to identify possible alternative beliefs or attitudes to be explored. For the client who views sex with children as “harmless” (“because I know that my victim is now grown up and has a family of his own”), an appropriate alternative attitude might be elicited through asking Socratic questions such as, “Can you think of a time when your life may have looked good to others but you were not feeling good inside?” or “Can you think of another way of looking at this?” Such questions may lead to the client themselves generating alternative attitudes such as, “It’s possible that sex can be harmful to children, but they hide it from others”. Despite careful questioning, however, some clients may require considerable support to generate possible alternative cognitions or may be unable to generate any. If a tangible and testable alternative belief is elicited, the client should be asked to rate how much they believe this alternative belief using the 0-100% scale outlined above. Typically, clients will identify very little conviction in the

alternative belief that they themselves have identified. However, this element is crucial since it provides baseline information regarding the client's belief in alternative cognitions enabling any improvements made in therapy to be measured against this initial rating.

At the fourth phase, the practitioner should share with the client the reasoning underpinning the BE. It is at this stage that client and practitioner collaborate to plan a BE through creating testable hypotheses directly linked to the unhelpful and alternative cognitions already identified (see Table 2 for examples). Although some key professionals may need to be informed of the planned BEs (e.g., those playing a key supportive role to the client such as personal officers or primary nurses), it is important that the planned BE and associated hypotheses are not openly communicated with others and are kept as naturalistic as possible. Highly staged BEs that have become common knowledge to others are unlikely to be effective since they can illicit unrealistic responses that impact negatively on both the learning experience and the therapeutic alliance.

TABLE 2 ABOUT HERE

The exact nature of the BE will depend upon the client themselves and how much they have been able to collaborate with the therapist (see Table 2). For example, a client who deals with their low self esteem through engaging in safety behaviors (i.e., not asking to switch shifts with someone on a voluntary work rota even when they have an important event coming up in their life; Fennell & Jenkins, 2004) is likely to predict that if they do not engage in these safety behaviors then they will be rejected by others. Thus, a key requirement in planning any BE to test this prediction may involve the client searching for information regarding how other individuals like themselves might deal with a situation in which a voluntary work shift clashed with an important event (i.e., an active information gathering

BE) as well as being exposed to the feared situation whilst decreasing safety behaviors (i.e., a BE involving the offender asking a volunteer colleague or the work manager whether it is possible to switch shifts for an important event whilst recording reactions and behavioral responses to this request). In another example, a client who holds the attitude that violence is a usual and acceptable way of dealing with social problems may be unable to generate any alternative attitude even with sophisticated questioning and support. In this example, the client might be encouraged to identify a range of individuals whom they trust (e.g., family members, peers, professionals) and in collaboration with their therapist develop a survey to elicit each individual's personal views on this topic. Of course, some responses (e.g., from family members or peers within the same antisocial network) may support the client's offense supportive attitude. Consequently, it is important that therapist and client collaborate to discuss the best possible BE for testing out the client's basic assumptions. In this case, for example, the client should be encouraged to gather information from a wider range of society in order to adequately test the breadth of their preexisting attitude. In essence, BEs should reflect best practice scientific hypothesis testing wherever possible, and clients should be encouraged to think carefully about the most objective and judicious BEs to test their belief(s).

Finally, the end point of the sequence—stage 5—involves collaboratively evaluating the results of the BE and devising new BEs as required to test the unhelpful cognition or related unhelpful cognitions in alternative ways. It is critical, at this stage, to ensure that the client re-rates their belief in the unhelpful and alternative cognitions using the 0-100% scale. Shifts in these ratings may be used to evaluate the effectiveness of therapy and any residual unhelpful beliefs of notable rating should be reexamined so that new BEs can be developed and implemented (Wells, 1997).

Problems and Concerns Undertaking BEs in Forensic Settings

Perhaps one of the biggest obstacles to implementing BEs within forensic settings is the fact that they take considerable clinical skill and time to set up and monitor correctly. As Gannon and Ward (2014) note, the modern day forensic psychologist faces significant pressures to treat huge numbers of forensic clients within highly security-focused environments via RNR-informed group programs. Individualized and creative therapy can be challenging to implement in security-focused establishments that attend almost exclusively to criminogenic need. Three key issues are evident. First, the collaboration and flexibility required to undertake effective BEs may well be misinterpreted within risk and security focused settings as *collusion*. Second, because security and risk are the key considerations within forensic contexts, any possible indicators of risk associated with undertaking an effective BE may be highlighted by forensic staff; preventing the BE being used as a long term psychological solution to risk. Third, some staff may fail to see the necessity for cognitions that appear non-criminogenic to be addressed as part of treatment. In all of these situations, the forensic psychologist should take the time to share their psychological formulation with multidisciplinary staff to ensure that the mechanisms of change, and the fundamental need for the proposed BE are understood by all. In particular, psychologists should be active—and take pride—in sharing and communicating flexible and effective psychological strategies with multidisciplinary staff. Particular emphasis, for example, should be placed upon the experiential and implicational processing aspect of the BE which is typically absent from many basic CBT techniques currently used to instigate cognitive change in forensic settings. There is ample room for BEs to be incorporated within group programs guided by RNR principles even when psychologists are experiencing an excessive workload. First, clients can be taught the key principles of the BE within group therapy and supported to identify a target belief and an associated BE that they can set up and test themselves. Alternatively, and ideally, psychologists can work with clients on a solely

individual basis or alongside group work to ensure appropriate set up, implementation, and debrief following a BE. Research (see Bennett-Levy, 2003) suggests that more, rather than less therapist support will enable anxious clients to appropriately follow through and analyze their BEs. Finally, BEs may be devised and implemented by forensic psychologists in training under appropriate supervision. Thus, although BEs require significant individualization in order for them to be effective (see Farmer & Chapman, 2008) they can and should be implemented within forensic settings.

A second universal problem found when implementing BEs is that, by their very nature, BEs will not always produce evidence that contradicts the unhelpful belief. When this is the case, the therapist should examine what *can* be taken as a learning point from the BE. For example, a client who claims to have ‘psychic powers’ may design a BE in which both he and his therapist leave the therapist room and write down three numbers. The client predicts that if he is indeed psychic then he will write down the same numbers as his therapist. When client and therapist show their numbers to each other they are exactly the same. In such a case it is of paramount importance that the therapist remains curious. The therapist might exclaim that they were not expecting this outcome and invite the client to look at all the possible explanations for the outcome (i.e., the three numbers written are the last three phone numbers of the ward, *or* psychic powers). Even in this example there are learning points to be gained resulting in the development of a more robust BE test of ‘psychic powers’. Finally, as Westbrook et al. (2007) notes, due to the explorative nature of BEs, and their use within real world settings, they can—and sometimes do—take unexpected negative turns (e.g., people react in a way that supports the unhelpful belief). In such cases, it is important that the therapist supports the client to examine the situation for the positive aspects so that the client does not experience the situation as disastrous (Westbrook et al., 2007).

The above example outlines how the BE may be used spontaneously within therapeutic sessions. However, BEs should be used flexibly; as out of session work, or even as a more prolonged exercise (e.g., keeping a diary to record whether bad thoughts actually lead to bad things; Harvey et al., 2004). The therapist may also set up BEs outside of the office in which both client and therapist take part (e.g., a therapist feigning being lost for words with a female at a cash register so that their socially anxious client holding low self esteem can observe what happens).

Finally, it is important to design BEs that will not lead to client harm. It is also vital that therapists do not overlook opportunities to undertake BEs due to their own negative cognitions and anxieties (e.g., for fear of the client disengaging with therapy; Westbrook et al., 2007; Wells, 1997). Therapists should be mindful that effective BEs are likely to elicit uncomfortable experiences for the client (Westbrook et al., 2007) and that this component is key for the experiential learning process (Wells, 1997). Wells (1997) has also noted that therapists should be wary of falling into the trap of feeling that a client's cognition is valid and unchangeable. For example, a forensic psychologist may struggle with a sense of hopelessness in attempting to tackle a client's normalization of violence due to that client's pervasive and extreme violent upbringing. This latter case, in particular, highlights the importance of regularly engaging with responsive and proactive supervision.

Conclusions

In this paper, I have examined the suite of contemporary techniques used by forensic psychologists to facilitate cognitive change in offending clients. I have argued that forensic psychologists use a range of both rational and experiential techniques imported from the general clinical psychology literature for promoting cognitive change. Surprisingly, however, although experiential methods such as role-play are being used in the forensic domain, I have

argued that there is one effective experiential technique—the BE—that is able to promote change at both the rational and experiential level and deserves much more attention.

Currently, the BE is not explicitly adopted for widespread use in forensic settings (see Beech, Craig, & Browne, 2009; Briggs & Kennington, 2006; Craig, Dixon, & Gannon, 2013; Hollin & Palmer, 2006) and is not highlighted as an important therapeutic technique for instigating long-term cognitive change (see Tafrate & Mitchell, 2014). The BE is a technique used by mainstream clinical psychologists. It enables client and therapist to collaborate and genuinely test the client's offense-supportive beliefs. These individually tailored experiments—when carefully designed—enable the offending client to experience adaptive substitute beliefs as more genuine cognitive alternatives. Consequently, although there are many experiential therapies that can be more widely used with offenders (e.g., imagery rescripting), the BE is most suitable and fitting for enabling psychologists to genuinely adapt problematic beliefs within the forensic context.

There are a number of reasons why the BE is particularly suited for psychological work within the forensic context. First, the BE is based on the basic principles of scientific hypothesis testing and so is simple to implement. This technique can be used within both individual and group treatment (as long as there is some element of individual support work) and can be implemented by psychologists in training when supervised by a qualified forensic psychologist. Second, the BE is a collaborative technique that encourages client autonomy and client-therapist collaboration. Consequently, the BE is able to more readily facilitate the therapeutic alliance within a relationship that can often be fraught with mistrust (see Gannon & Ward, 2014). Third, the BE is a tool that can be applied to a whole host of problematic cognitions that may be viewed as being offense-supportive. The BE may be used to tackle cognitions indicating criminogenic need as well as those impeding the offending client's ability to lead a prosocial life and/or engage and respond to treatment. In fact, the interested

reader will find many examples of effective BEs within general clinical psychology that may be adapted for tackling these latter types of cognitions (see Fennell & Jenkins, 2004; Flecknoe & Sanders, 2004; Grant et al., 2004). Fourth, clients do not need to hold a high level of verbal reasoning ability in order to engage with and understand the reasoning behind the BE. Finally, since BEs are tailor-made; they provide a clear opportunity for the forensic psychologist to engage in flexible and creative individualized treatment which is associated with increased treatment effectiveness (Barlow, 2011; Marshall, 2009; Marshall & Serran, 2004).

It is perhaps an uncomfortable truth for those of us working in forensic psychology that some of our methods of working with offending clients appear to lack the vigor and variation of those implemented by our more general clinical psychological colleagues. This is likely to reflect the evolving nature of a relatively new field of psychology that is playing catch up to the 'big brother' of mainstream clinical psychology. However, forensic psychologists are also subject to huge pressures to provide effective risk-reducing psychology to large numbers of clients whilst adhering to high levels of security (see Gannon & Ward, 2014). Even within these constraints, however, the BE can and should hold an important place within forensic psychology. Forensic psychologists should consider valuable opportunities to undertake the BE with their clients, teach the skills required to implement good BEs to their students, and provide supervision to assist those in training to develop competencies in BE implementation. It appears that in policy-maker's haste to provide psychological therapy to large numbers of offending clients, a fundamental problem has been overlooked. Offenders simply do not believe many of the intellectual challenges to their beliefs or the alternative substitute beliefs proposed by facilitators and peers. Put simply, clients need to experience for themselves situations in which their preexisting beliefs and

alternative beliefs are put to the test in order to bring about long lasting and pro-social cognitive change.

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Table 1.

*Examples of Good Life/Responsivity Cognition Categories to be Targeted in Treatment***Self Esteem**

“I am a failure at everything”,

“I am not worthy of being loved”,

“I am disliked by other people”,

“There is something wrong with my physical appearance”

Trust

“Psychologists twist and exploit everything I say”

“Professionals always let you down”

Trauma

“I will lose control if I talk about my distressing experience”

“I will go mad if I experience a flashback”

Mental Health

Social Anxiety (e.g., “Others will ridicule me if I blush”)

Depression (e.g., “I can’t see any point to life”)

Believing thoughts direct actions (e.g., “Thinking about offending makes me offend”)

Psychosis (e.g., My thoughts are being broadcast to others, “Other

People are putting thoughts into my head”, “I can read other people’s minds, “I must obey the voices that I hear”)

Table 2

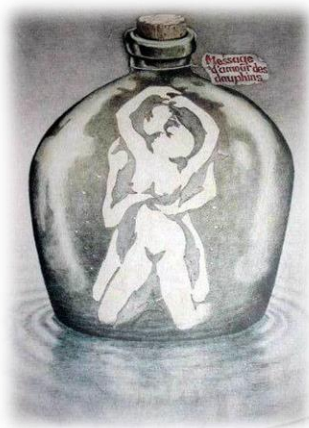
*Examples of BEs Applied to Forensic Cognition***Case 1: Cognitions Supporting Child Sexual Abuse**

Background: Adrian was a 38-year-old detained in hospital with a diagnosis of Schizoaffective disorder. His index offense involved him sexually assaulting a prepubescent child acquaintance in public toilets. During his sexual offender treatment group he consistently stated that young children “knew enough about sex to make their own decisions” and became angry when this perspective was challenged by other group members.

Offense Supportive Cognition: Young children are knowledgeable and well informed about sex (belief conviction = 100%).

Alternative Cognition(s): Adrian was unable to generate or consider any alternative cognitions.

Experiment: Adrian’s facilitator set up an exploratory survey. She found an optical illusion (Message d’Amour des Dauphins, Sandro Del Prete, 1987; pictured below) depicting both dolphins *and* a couple posing erotically.



Adrian’s facilitator prepared him for the experiment by showing him the optical illusion. At first, Adrian could only see the erotic pose and his facilitator had to point out the dolphins in the picture. Adrian predicted that prepubescent children would also see the sexual pose first due to their sexual awareness. His facilitator asked five of her colleague’s prepubescent children to look at the picture and audio recorded their responses.

Outcome: All five of the children saw dolphins in the picture first. Only one child also noticed the couple posing erotically. Adrian was visibly surprised by the outcome. He stated that it had made him think further about how children view their world. This enabled Adrian to collaborate with his facilitator on more experiments to test the validity of his belief about children’s sexual knowledge. Adrian reduced his original belief rating to 75%

Case 2: Cognitions Supporting Sexual Assault of Adults

Background: Geoffrey was a 50-year-old male detained in hospital with a diagnosis of Schizophrenia. His index offenses consisted of two counts of sexual assault: one against an acquaintance and one against a hospital staff member. During individualized treatment for his offending he angrily stated that he could “never trust a woman” enough to have an intimate relationship. He recalled one particularly painful experience during his early 20s when—without warning—a woman he had been living with left him for another man and cleared out

their joint bank account.

Offense Supportive Cognition: Women cannot ever be trusted. They will always let you down (belief conviction = 95%).

Alternative Cognition(s): Geoffrey was able to generate an alternative perspective (i.e., “There might be some women you can trust”) but rated this belief with little conviction (15%).

Experiment: Geoffrey predicted that anyone who had been badly treated by a woman in the past would also believe women to be untrustworthy. Geoffrey’s facilitator collaborated with Geoffrey and devised a short exploratory survey that could be given to five of Geoffrey’s male heterosexual friends in the community and five male heterosexual hospital staff. The survey asked respondents whether they had ever been significantly ‘let down’ by a woman, how this had affected them, whether they were currently in a relationship with a woman, and how they currently viewed women.

Outcome: The results were varied illustrating that men had very different experiences and thoughts about women. Importantly, however, a sizeable proportion of men could recall a negative experience of having been significantly ‘let down’ by a woman but had viewed this as a ‘one off’ and had gone on to develop trusting and respectful relationships with women. Geoffrey appeared to think deeply about how other people had ‘moved on’ from damaging experiences with women. He stated that he believed he had not coped well with the situation and had allowed this one experience to taint his view of all other women. Geoffrey re-rated his original belief as 60% and his alternative belief as 40%.

Case 3: Cognitions Supporting General Offending

Background: Jim was a 27-year-old serving a short term prison sentence for theft. Jim had been convicted of numerous theft offenses previously. Jim held firm beliefs about the antisocial nature of the world around him. He stated that he saw no point in changing his own criminal lifestyle or beliefs since those around him were “all the same”.

Offense Supportive Cognition: Everyone is ‘up to no good’. If you turn your back and leave anything unguarded people will steal – it’s human nature (belief conviction = 90%).

Alternative Cognition: It is possible that there are some people out there who will not take advantage of me leaving something unguarded (belief conviction = 10%).

Experiment: Over a period of two weeks, Jim and his therapist set up a series of experiments on his prison wing in which items that looked appealing but were innocuous¹—such as an empty leather pouch—were left unattended at various places on the wing.

Outcome: Interestingly, over a period of two weeks, the majority of items left on the wing were either handed into the Wing office by prisoners or prison staff, or went unnoticed. A

¹ In this case, it was important to ensure items that could breach security were not left lying around on the Wing.

small percentage 'went missing'. On one occasion, a fellow prisoner went up to Jim with his 'leather pouch' warning him to be 'more careful' as he had left it on the pool table. Jim stated that he was surprised that such a small amount of items had seemingly been taken. He reflected that even in prison, people were less antisocial than he had originally thought. Jim re-rated his original belief as 40% and his alternative belief as 60%.

Case 4: Cognitions Blocking a Good Life/Treatment Responsivity

Background: Phil was a 38-year-old serving a short-term sentence for assault. Phil had never received a prison sentence before and was attending a general cognitive skills group. He valued intimacy with females in the community highly and began to become preoccupied with beliefs that his sexual potency was diminishing in prison since he was not experiencing regular erections in his 'shared cell'. Phil was so preoccupied with these beliefs that they dominated any conversation that he had with his facilitator and he appeared distracted in group sessions.

Cognition Blocking Good Life/Treatment Responsivity: Being in prison is affecting my sexual potency. If this carries on I will be totally impotent by the time I am released (belief conviction = 85%).

Alternative Cognition: Perhaps there is nothing wrong with my sexual potency and I am just feeling more anxious than usual as I am in prison and sharing a cell (belief conviction = 15%).

Experiment: Phil was due to be moving to his own cell in the near future. Before and after the cell move, Phil was encouraged to keep a log of spontaneous erections experienced. Phil predicted that if his potency had been irretrievably affected by prison then he would experience no difference in erections experienced after moving to his own cell. Once alone in a cell, Phil was also asked to conduct a masturbatory experiment. As part of this experiment, Phil was asked to masturbate every day over the period of a week and to rate his erection strength (0 = flaccid, 10 = extremely hard) and time to climax. Phil predicted that if his potency was damaged for good then he would not be able to achieve a firm erection or masturbate effectively.

Outcome: Once Phil moved cells, he reported that his spontaneous erections did not increase. Both Phil and his facilitator examined the possible reasons for this (i.e., anxiety or a long term decrease in sexual potency) and then instigated the masturbatory experiment. Phil reported very satisfactory erections and time to masturbation once he had been directed to engage in masturbatory homework. From this, Phil concluded that his anxiety at being in prison had dampened his spontaneous erections but that once he put his mind to it his potency was still very much present. Jim re-rated his original belief as 30% and his alternative belief as 70%.

Case 5: Cognitions Blocking a Good Life/Treatment Responsivity

Background: Tim was a 57-year-old serving a medium term prison sentence for arson. He

was keen to undertake a new group examining firesetting. However, at the first group, he left the room stating that he could not sit in the room alongside so many people due to claustrophobia.

Cognition Blocking Good Life/Treatment Responsivity: If I sit in that treatment room for an hour with all of those people in it I will collapse due to a lack of oxygen (belief conviction = 85%).

Alternative Cognition: If I sit in the treatment room for an hour with lots of other people I may experience a panic attack and 'feel' like I am running out of oxygen but I will not collapse (belief conviction = 40%).

Experiment: Tim was a very engaged individual who was keen to ensure that his fears did not stop him from undertaking the group. He had battled with his experience of claustrophobia for some time and was willing to test himself fully. Tim agreed to sit in the treatment room outside of group time with the room full of psychology assistants. Tim stated that he would try and stay in the room for the full hour while the team talked about psychology programs available at the prison. He was asked to rate his anxiety every ten minutes.

Outcome: Tim found the situation extremely anxiety provoking and rated himself as having high levels of anxiety in the first 20 minutes of the session. However, he was able to stay in the room for the full hour and noted that his anxiety decreased over time. He reflected that he did not collapse or faint due to a lack of oxygen. Tim stated that he felt more convinced of his alternative belief after 'sitting it out'. Tim re-rated his original belief as 40% and his alternative belief as 60%.