

**Enactive Emotion In Forensic Practice: The Application of Embodied Cognitive and  
Affective Science to Offender Rehabilitation Programs**

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## Abstract

In recent years, affective science has seen a shift in the understanding of emotion and its relationship to cognition. No longer is cognition viewed as the only significant factor in determining emotional experience, and as fundamentally distinct from bodily feeling. Rather than a linear causal relationship between one and the other, the philosophy and cognitive science of Enactivism suggests that the cognitive and emotional elements of experience, along with the body and surrounding environment, are constitutive of each other, and continuously influence each other in a dynamic, multidirectional manner to produce the experience of emotional patterns (Colombetti & Thompson, 2008). However, despite these advances in emotion theory, current rehabilitation programs such as the Reasoning and Rehabilitation (R&R, Ross et al., 2016) program continue to understand cognition and emotion as functionally distinct components of experience, with deficits conceptualised in mainly cognitive terms, and targeted through Cognitive Skills, which largely neglect the emotional elements of experience. This thesis explores how an enactivist understanding of emotion can be applied to offender rehabilitation programs, with specific reference to the R&R program. It is concluded that R&R and similar programs would benefit significantly from revisions to conceptualisations of cognitive deficits, and in treatment components, which should integrate emotional and cognitive techniques.

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## Chapter 1: Introduction

The understanding of the nature of emotions, or in broader terminology; affect, has seen significant and exciting changes within the past decade or so. Up until very recently, the mantra of the 'cognitivist' era (1960s, 70s) of emotion theory that cognition alone determines one's emotional experience has had a continuous influence on emotion theory, most notably in the conceptualisation of emotion and cognition as having a linear causal relationship (Damasio, 1994; Prinz, 2005). In addition, while some theorists propose dynamic, deeply integrated accounts of the cognition-emotion relationship (Lewis, 2005), they are nonetheless viewed as fundamentally distinct components of emotional episodes. However, a new school of emotion theorists have challenged these assumptions.

The Enactive philosophy of the mind, proposed by Thompson and colleagues (1991; 2004; 2008), draws on philosophical, biological, neuroscientific, and phenomenological concepts to understand the mind as being truly embodied: constituting the brain, body, and the surrounding environment. An inherently affective 'sense making' process occurs where an organism orientates itself toward benefits and away from harms. Thus, the mind is understood as something that is 'enacted', through the brain, body, and environment mutually modulating and constraining each other as a person orientates themselves in accordance with goals. Enactive emotion theorists suggest that individuals are affectively orientated towards certain features of the environment (affective framing), based on a core affect (Maiese, 2011), and that this orientation serves as a starting point for emotional episodes: whole-organism patterns, where cognition and bodily feelings continuously influence each other in a constitutive, bidirectional, non-sequential, and dynamic manner,

such that they can be understood as different elements of the same thing (Colombetti, 2014).

However, despite this enriched understanding of the mind and emotion, where cognition and emotion are constitutively dependent, offender rehabilitation programs, such as Ross and Fabiano's highly popular (1985; 2016) Reasoning and Rehabilitation program, continue to prioritise cognition as a cause of behaviour, and view emotion as something that impedes rational, logical thinking (Ward, 2017). This is reflected in treatment modules that largely neglect the emotional elements of experience, and instead provide a one-dimensional, cognition-focused approach that addresses emotion only indirectly.

This thesis will consist of four further chapters. The second will examine the history of emotion theory, how affective science has advanced over the course of the 20<sup>th</sup> century, as well as in recent times, and present an argument for an *Enactive* theory of cognition and emotion. The third will examine Greenberg and colleagues' (1997; 2007) Process Experiential-Emotion-Focussed Therapy as an approach that appears compatible with enactive emotion theory. In addition, the compatibility of current offender rehabilitation programs with Enactivism will be explored, using R&R as an example. The fourth chapter will outline potential revisions to the Reasoning and Rehabilitation program based on Enactive emotion theory. Finally, the fifth chapter will conclude with a summary of the main points and arguments of the thesis.

## Chapter 2: Emotion Theory: History, Current Theories, and the Enactivist Perspective

Emotions have most been defined by theorists in terms of the components of an emotional episode. The components of an emotional episode may include a cognitive component (appraisal), a feeling or experiential component (positive and negative valence), a motivational component (to approach or avoid), a somatic or physiological component (heart rate, blood pressure, blood flow to the face) and a motor or expressive behaviour component (smiling, frowning; Moors, 2010). Affect more broadly also encompasses moods: longer emotional dispositions that emerge from the persistence, and intensity of emotional episodes (Colombetti, 2014). Moods and emotional episodes are also modulated by personality-based dispositions, for example; trait agreeableness is unsurprisingly negatively associated with measures of angry/hostile mood (Harris & Lucia, 2003). In addition, a core, background form of affect can orientate an individual towards personally-significant features of the surrounding environment (Maiese, 2011).

Common to all of these modes of affect, are feelings of subjective importance; emotions reflect what a person cares about, and they motivate us to reap the benefits and avoid the harms of the world around us. Historically, the philosophy of emotion and affective science have placed varying degrees of importance on the bodily and cognitive components of emotion, often one at the expense of the other. However, as discussed in this chapter, the strict separation of emotion into cognitive and bodily components has been challenged by a recent school of emotion philosophers and theorists, who have emphasised the functional and constitutive interdependence of both.

## Classical and Cognitivist Accounts of Emotion

Classical accounts of emotion tended to emphasise the role of the body in the experience of feelings, while generally excluding cognitive appraisal as an essential component. Aristotle in his *On the Soul* (*De Anima*, version 1981) claimed emotions should be understood in terms of a form (feeling), and matter (physiology), suggesting that in the experience of emotion, bodily changes reflect the disposition of the soul: “It seems that all the attributions of the soul, e.g., temper, good temper, fear, pity, courage, also gladness and love and hate, exist with the body, for the body is being affected simultaneously with these” (pp. 403).

Descartes in his work *The Passions of the Soul* (1644, 1988) claimed that the body acts on the mind through the movements of the animal spirits that reach the pineal gland, where each movement of the spirits sends an impulse to the pineal gland, causing a specific feeling (Descartes, 1644, 1988). In addition to this body-to-mind relationship, he seemingly defined emotions in relation to cognition (Colombetti & Thompson, 2008). For instance, he claimed that recognising some good in one’s self causes joy, and some fault in one’s self causes sadness (Descartes, 1644, 1988). Therefore, for Descartes both the body and the mind had an important, bidirectional role in emotion (Colombetti & Thompson, 2008). However, it was primarily his view that feelings are the awareness of the bodily changes that was adopted by later ‘physiological’ theorists William James and Charles Darwin.

According to James in his paper *Mind* (1884/1981), emotional feelings are the subjective interpretation of a specific pattern of bodily and behavioural expression. On emotion he writes: “the bodily changes follow directly the perception of the exciting fact, and...our feeling of the same changes as they occur IS the emotion” (James, 1884/1981, pp. 1065). Darwin (1872/1998), similarly argued that the behavioural and bodily manifestations of



emotion precede the experience of feelings. However, James' theory was unique in the claim that patterns of physiology and behaviour differentiate the experience emotion, suggesting that physiological responses in emotions are "almost infinitely numerous and subtle" (James, 1884/1969, pp. 250).

The emphasis on the body observed in classical accounts of emotion was replaced by an even stronger emphasis on cognition from the 1960s. These 'cognitivist' accounts of emotion advocated by theorists including Solomon (1976) and Lyons (1980) became the norm in affective science. They corresponded to the 'Computer model' of cognitive science, where cognition is conceptualised as the computational sequence of input and output, as information is processed symbolically within the brain. Thus, cognition is understood as a 'heady' or 'brainy' process, fundamentally distinct, and divided from physiological arousal and feelings (Thompson, 2007). According to the cognitivist perspective of emotion, it is the antecedent cognitive processes of belief and desire that define emotion, along with some extra physiological component (Helm, 2010). Thus, as Helm suggests, for a cognitivist 'fear is, roughly, a belief that something is dangerous, a desire to avoid the danger, and a sinking feeling in one's stomach' (page number). This perspective is evident in the work of Lyons (1980), who suggested emotions were simply 'ordinary' judgements that become emotions with subsequent physiological changes. Therefore, according to the cognitivist perspective, the body does not exert any influence the brain. Feelings are dependent on specific cognitive states, and are epiphenomena. Essentially, feelings are unimportant in understanding human behaviour from a cognitivist perspective, and may be understood as an evolutionary remnant such as the human appendix (Helm, 2010). This emphasis on cognition, and disregard for the body in emotion theory, is appropriately described by Colombetti & Thompson (2008) as the 'disembodied stance'.

Cognitivist theories were largely built on the criticism of classical and Jamesian 'feeling' theories as neglecting how an individual's pre-existing beliefs and desires affect the motivational component of emotion (Solomon, 1976; Lyons, 1980). Solomon claimed that James's theory defined emotions as "nothing but our awareness of...chemical and physiological changes in our bodies" (Solomon, 1976, p. 153), and in contrast, defined emotions as judgments that are actively 'done' by a person based on beliefs about the self and the world. The claim that James's theory can be reduced to awareness of bodily changes, has been contested by Ellsworth (1994), who suggests that the notion of appraisal was so obvious in James's theory (reference to a perceived object), it did not require explanation. Whether this is the case or not, essentially, an emotion requires an object/s to be evaluated, and how these objects are evaluated depends on beliefs about their significance, and a desire to act in accordance with this. The notion that beliefs and desires are necessary in emotional experience is captured by Prinz (2004) using the example of shame: "Not only can beliefs influence a state of shame, but they also seem to be obligatory for shame. If you do not believe you did anything wrong, you will not feel ashamed" (Prinz, 2004, p.83). Thus, the desire to avoid harm and the belief that some harm has occurred appear necessary in order to experience negative emotions, just as the desire to acquire some benefit and the belief in benefit appear necessary for positive emotions.

Additionally, in contrast to the Jamesian notion that there is a specific pattern of bodily arousal and behaviour that precedes feeling, cognitivist accounts also suggested that physiological arousal only enhances feelings, and does not differentiate them (Canon, 1927; Schacter & Singer 1962; Dutton & Aron, 1974). This idea was first proposed by Canon (1927), who suggested visceral feedback was too insensitive and slow to differentiate emotions, and emphasised that animals still displayed emotional behaviour, when visceral

feedback was surgically destroyed. It was later exemplified in the oft-cited study of Schachter and Singer (1962). The study manipulated physiological arousal by injecting subjects with either epinephrine or a placebo. Epinephrine subjects were either informed or uninformed about the effects of the injection before interacting with a happy or angry confederate. It was found that emotions corresponding to the affective tone of the confederate were experienced by subjects who were uninformed about the effects of the drug, but not those who were informed, and could therefore attribute arousal to the injection. Based on these results, it was concluded by the authors that the cognitive labelling of arousal to one's environment is what differentiates emotional experience. Thus, according to this theory there are no physiological patterns that constitute various emotions, only varying degrees of arousal. Similarly, Dutton and Aron (1974) demonstrated that sexual content in stories read to, and post-experiment attempts to contact an attractive female interviewer were greater in subjects who were on an anxiety-causing swing bridge, compared to an unexciting bridge. The conclusion: that the physiological arousal (anxiety) caused by the swing bridge was transferred to sexual arousal due to the sexual cognitions of subjects. This was another key study for the cognitivist movement, and reinforced Schachter and Singer's (1962) cognitive labelling theory.

More recently, critics of the cognitivist perspective have questioned the conclusions drawn by the authors of these studies (Colombetti & Thompson, 2008; Colombetti, 2014). In regards to both studies, Colombetti (2014) writes that it was simply an assumption that physiological arousal remained constant throughout the experiment, and that "no attention was given to the possibility that different experimental conditions could have induced physiological differentiation that was itself responsible for the observed different emotional responses" (Colombetti, 2014, pp. 91). In other words; the problem is that the causal

sequence between physiological arousal and cognition cannot be determined based on the results, because the notion that differentiated physiological states cannot influence the brain is assumed, not empirically supported.

### Neo-Jamesian and Dynamic Systems Accounts of Emotion

The assumption that the body cannot influence the brain (disembodiment), has been challenged by more recent neo-Jamesian theories of emotion. These theories emphasise the body's functional role in emotions and, in contrast to cognitivist theories, are grounded in neuropsychological evidence. Damasio (1994) argues that empirical evidence points to a distinctive and practical function of emotional feelings. Patients with damage to the ventromedial region (VMF) of the prefrontal cortex (Phineas Gage the most famous example) often experience dramatic personality changes without impaired intellectual/cognitive functioning. According to Damasio, these changes can be traced to a loss of utilization of somatic markers involved in practical reasoning. This somatic perception theory is also supported by studies involving VMF patients in a gambling task (Bechara et al. 1994; Damasio, 1994). In this task, VMF patients and controls are presented with a choice between 4 decks of cards yielding financial rewards or costs: A and B with large rewards but large punishments (high-risk), and B and C with small rewards and small punishments (low-risk). In the end, the cost-benefit ratio of decks B and C is greater, so these decks will yield less overall reward. In these studies, it was found that normal subjects were initially drawn to more risky decks, but shifted to low-risk decks because of the large costs (risk aversion), while VMF patients selected primarily high-risk decks. Thus, VMF patients failed to utilise the somatic markers of risk, and therefore, did not become fearful

of potential financial losses, meaning they could not make practical decisions based on cost/benefit ratios. Based on VMF studies, Damasio (1994; 2003) theorised that through evolution, the body naturally responds physiologically and behaviourally to environmental costs and benefits, which are then consciously felt, and that the combination of these constitute an emotion. Thus, as Helm (2010) suggests, neo-Jamesian theories such as Damasio's avoid the shortcomings of feeling theories highlighted by cognitivism, by understanding emotions as being about the situational circumstances that are being responded to by the body.

Prinz's (2004) Embodied Appraisal Theory (EAT), also emphasises the evaluative role of the body, claiming that emotions are non-cognitive, embodied appraisals. This is based on the recognition that emotions involve brain areas other than the prefrontal areas involved in cognition, and that deep brain areas such as the amygdala can induce the bodily and behavioural expression of emotions without prefrontal influence (Prinz, 2004). Similar to Damasio's theory, and in contrast to the cognitivist notion that cognitive desires and beliefs are the necessary constituents of emotions, EAT claims that "emotions necessarily comprise representations of organism–environment relations with respect to well-being" (Prinz, 2004, p. 52). Prinz (2004) theorizes that 'valence markers', comparable to Damasio's 'somatic markers', work as affect-based commands, either to sustain a positive emotion, or eradicate a negative emotion. Thus, for Prinz, emotions are essential for motivation: "the somatic component of an emotion prepares us for action, and the valence marker disposes us to act" (2004, pp. 194).

In addition to neo-Jamesian accounts of emotion emphasising the embodiment of emotions, in order to align emotion theory with neurobiology, theorists such as Lewis (2005) have

adopted a dynamic systems (DS) theory approach to emotion. Lewis's theory builds on DS approaches to cognition, which in contrast to the cognitivist understanding of cognition as a computational sequence of input and output, highlight the emergent properties of cognition. Lower order processes are amplified through multidirectional feedback cycles into higher order processes in a non-linear pattern, and maintained through negative feedback and entrainment (synchronization). Thus, rather than a linear cause-effect sequence, causal processes may be exponential, subject to threshold effects, amplification, and dampening (Lewis, 2005). According to Lewis' model, emotion and appraisal rapidly converge to form an *emotional interpretation* (EI). An EI emerges as the current emotional order is disrupted by some external or internal trigger, which is amplified through positive feedback between emotional and cognitive constituents, and eventually stabilised through negative feedback and entrainment. Coherent states that are endured will then give rise to learning, such that the appraisal will influence later episodes. Lewis (2005) describes an emotional interpretation as an 'emotion-appraisal amalgam', where bodily feelings and appraisal are integrated to the point where their causal sequence cannot be determined. As Lewis (2005) notes, the model overcomes many of the logical and empirical problems of cognitivist information processing models, and allows a bridge between neurobiology and psychological theory:

'Neurobiology examines processes that are componential, complex, and bidirectional, including reciprocal connections at all levels of neural circuitry from neurons to whole brain systems. In doing so, neurobiology concretely defines constituent parts and subsystems and then relates them via principles of recruitment and synchronization that bear little resemblance to information-processing models.' (Lewis 2005, pp. 173)

Thus, the dynamic, multidirectional nature of neural circuitry and the body, he argues, can only be encompassed in a dynamic model of emotion. However, despite Lewis's theory emphasising the dynamic, deeply integrated nature of emotion and cognition, and neo-Jamesian theories emphasising the embodiment of emotions, these accounts have been challenged more recently by the notion that it is not just the physiological and feeling components of emotion that are embodied, but also *cognition* itself. Colombetti and Thompson (2008) argue that these theories have rediscovered the embodiment of emotions "without abandoning the disembodied conception of cognition inherited from cognitivism" (pp. 53). As Thompson (2007) notes, according to cognitivism, cognition "takes place in a central cognitive module of the brain, separate from the systems for perception, emotion and motor action. The cognitive unconscious is neither somatic nor affective, and it is lodged firmly within the head." (pp. 6) Essentially, the cognitivist model had created an explanatory gap between cognitive information processing and subjective experience, a gap that had a continuous influence on emotion theory. From the perspective of embodied cognition, Prinz's account of embodied appraisal is not truly embodied, because intellectual cognitions, referred to as 'judgements', are still a fundamentally distinct process (Colombetti & Thompson, 2008). In addition, dynamic system models such as Lewis's, while suggesting a rapid amalgamation of appraisal and emotion, nevertheless see the two as distinct components of emotion (Colombetti 2014).

### Enactivism: Philosophy and Science of the Mind

The embodiment of cognition is advocated by the cognitive science of *enactivism*. The enactivist perspective was introduced by Varela and colleagues (1991), and incorporates a

number of related ideas drawn from biology, philosophical phenomenology, and psychology/neuroscience. The term *enact* refers to the carrying out of an action, and in relation to cognitive science, to the active *bringing forth* of the mind. Borrowing from the poet Antonio Machado, Varela (1986) uses the analogy of laying down a path when walking to describe enaction: “Wanderer, the road is your footsteps, nothing else; you lay down a path in walking” (pp. 63). This alludes to the mind being ‘enacted’ through a person’s subjective interaction with their environment.

Thompson and colleagues (1991; 2004; 2008) propose five related ideas under the enactivist perspective of the mind:

The first idea is that organisms are autonomous agents that actively create their own identities through reciprocal interactions with their environment, therefore enacting their own cognitive domains. Central to this idea is the biological theory of autopoiesis (Maturana & Valera, 1980): that life is self-generating and maintaining, and that the process of self-regulation (the extraction of beneficial resources and avoidance of harms in the environment) is a *sense-making* process, whereby, a living organism brings forth its own subjective world, or *Umwelt*. Thus, cognition is the creation of subjective meaning (sense-making) and identity, from self-regulatory interactions with the world.

The second idea is that the nervous system is as an autonomous system. Autonomous systems are self-determining, and coherently unified, as opposed to a heteronomous system such as an ATM machine that is determined from the outside, and operates through an input-processing-output sequence. Thus, information is not processed in the brain through a sequence of perceptual input, cognitive processing, and motor output. Rather, the brain operates as a circular and reentrant (functionally integrated) neuronal network,



actively generating its own meaningful patterns of activity. Thus, the brain is *self-organising*; it is not controlled by any one component, rather, its activity is the result of the reciprocal influences of its constituents. Large-scale, dynamic neural patterns *emerge* from the integration of local neural activities, which are in turn constrained by the large-scale patterns. The emergent, dynamic nature of the brain is indicated by neurodynamical studies of epilepsy, in which localised epileptic activity can produce global states of consciousness (illusions, hallucinations, memory phenomena; Thompson & Varela, 2001).

The third idea is that cognition is a form of embodied action. Perception is not the activation of internal representations of the outside world, it is as an action, carried out from a vast amount of implicit, skilful knowledge of changing sensorimotor information (O'Regan & Noë, 2001). Cognition emerges from recurrent patterns of mutually influencing and constraining brain, bodily, and environmental constituents. The whole organism (brain and body) is an autonomous, self-organising system, where the sensorimotor coupling of the organism and its environment modulates the formation of neural patterns, in turn, modulating sensorimotor coupling. Thus, the brain and the body function interdependently, with physiological processes modulating subjective experience. For instance, studies which show that bodily gestures can provide a means of solving problems, and can actually precede conscious solutions (McNeill, 2005). Damasio's (1994) previously mentioned work also demonstrates how important the interaction between brain and body is for adaptive decision making.

The fourth idea, drawing on phenomenological philosophy, is that the subjective mind is embodied: extended beyond the brain both structurally, and phenomenologically. The *structural* embodiment of cognition refers to the mind being subsumed by neural, bodily,

and environmental processes, while the *phenomenological* embodiment of cognition, refers to cognition as the subjective experience of oneself as an agent situated in the world. Thus, cognition has a constitutive relation to its objects.

Finally, drawing on the previous idea, the fifth idea is that cognitive science and phenomenology should both complement and inform one another.

In summary, the enactive perspective emphasises that the mind of an organism is not limited to information processing within the brain. The mind extends structurally and phenomenologically beyond the brain, to the body, and the environment, such that all of these constituents mutually and dynamically influence each other. Cognition is a sense-making process, as a subjective world and identity is enacted through the maintenance of the self.

### The Enactive Approach to Emotion

The enactive perspective has been adopted by emotion theorists to conceptualise emotion in a way that differs from the traditional view that subjective appraisal, and bodily processes (arousal, action) are distinct components. Further, emotions, and affect as a whole, are understood as fundamental to the sense making nature of organisms. In regards to the enactive perspective, Thompson (2004) writes:

“Living isn’t simply a cognitive process; it’s also an *emotive* process of sense-making, of bringing signification and value into existence. In this way the world becomes a place of valence, of attraction and repulsion, approach or escape.” (pp. 386).

Thus, positively and negatively valenced affect orientates an organism towards environmental harms and threats, meaning affect is adaptive and self-regulatory, and sense making in nature. However, in this sense, affectivity does not require a nervous system or feelings. Rather, it “refers broadly to a lack of indifference and rather a sensibility or interest for one’s existence” (Colombetti, 2014, pp. 1). Therefore, even single-celled organisms engage in this affective, sense-making process as they interact with their environment. Human emotion is, of course, a much more intricate version of this, but this underlying feature of sense-making remains the same.

### Core Affect and Affective Framing

In light of this sense making process, the concept of *primordial affectivity* has been applied to an enactive understanding of emotion. According to Maiese (2011), this core, primordial affectivity frames (orientates towards) salient features of the environment that are beneficial and harmful. Maiese writes of affective framing:

‘What I call affective framing is the process whereby we interpret persons, objects, facts, states of affairs, ourselves, and so forth in terms of embodied desiderative feelings. The idea is that, based on what we care about, we immediately focus our attention on particular features of our surroundings that are important to us.....an individual’s affective orientation makes her prone to certain patterns of thought and behaviour rather than others, shapes the way she attends to and interprets her surroundings, and thereby allows other cognitive processes of reasoning, deliberation, and justification to get off the ground (Maiese, 2011, pp. 3-5).

Essentially, affective framing is a non-deliberative, affect-based shortcut, whereby features of the environment that are of most personal significance will immediately come into attentional focus. As Maiese (2011) suggests, this allows a person to reduce an overwhelming amount of information in the environment, to something that is cognitively-manageable, allowing a successful, goal-relevant interaction between a person and their environment. Affective framing reflects a core affective disposition, which “conditions and circumscribes the kind of cognitive engagement one is able to have with the world” (Ridley, 1997). This explains how different individuals will pick up on subtle features of the environment that others will miss, and how different impressions are formed of the speech and mannerisms of the same person (Maiese, 2014). For example, a highly paranoid person may interpret a joke directed at them as malicious and hostile, while a highly agreeable person may interpret the same joke as playful and friendly. For the paranoid person, possible signs of hostility (facial expression, tone of voice) will likely come into attentional focus, and signs of friendliness will largely go unnoticed, reflecting a background affective orientation that is prone to threat-detection. This initial framing of the situation will serve as a starting point for deeper feelings (fear, anger) and higher-order cognitive processing (reasoning, deliberation).

The notion of affective framing is particularly relevant to the forensic field, as Maiese (2014) suggests, because it is a necessary feature of decision making and moral judgement. This is because: “it enables him or her to direct his or her self-conscious or self-reflective attention to those aspects of the situation that his or her feelings have underscored as weighty so that he or she may consider them further and bring various principles to bear.”

Thus, as this initial focusing of attention is an essential starting point for higher-order cognition, affect is also a necessary constituent of reasoning, deliberation, and decision

making. Therefore, adaptive cognition and behaviour would essentially be impossible without affective framing.

Maiese (2014) suggests that the inability to properly engage in affective framing, and the resulting cognitive dysfunction are exemplified in the case of psychopathy. Numerous studies have indicated that psychopaths display affective processing deficits. Examples include; not making faster lexical decisions for emotionally-charged words (cancer, rape) than neutral words as non-psychopaths do (Hare et al., 1991), displaying reduced affective priming but not semantic priming (Blair et al., 2006), and difficulty identifying the emotional valence but not the denotation of metaphorical sentences (Herve' et al., 2003). Further, another study found controls displayed more vivid and detailed recollections of emotionally-charged colour slides compared to neutral slides, while psychopaths did not (Nadis, 1995), suggesting that these affective processing deficits may lead to deficits in attention, namely an inability to attend to emotionally-significant information.

Based on this evidence, Maiese (2014) theorises that deficits in affective framing reduce the capacity of psychopaths to engage in effective decision making and moral judgement. The impulsivity of psychopaths can be explained by a narrowing of attention to immediate reward, at the expense information conducive to long term goals. This temporal narrowing of attention, Maiese suggests, is the result of affective framing deficits. Evaluation and reappraisal of one's potential actions involves reflecting on possible negative consequences, and if information signalling these consequences is not attended to, it cannot be reflected on.

In the case of moral judgement, psychopaths typically understand moral rules on an intellectual level, but are unable to understand the impact of their actions on others

(Maiese, 2014). Maiese suggests that “because affective framing plays a diminished role in their deliberation and moral judgment, psychopaths often fail to be especially ‘moved’ by various forms of wrongdoing” (2014, pp. 822). Thus, affective framing deficits explain the lack of empathy and guilt of psychopaths. They are not ‘moved’ by the pain and suffering of others, meaning they cannot understand it in an emotional sense.

Psychopathy therefore demonstrates that affect and cognition are largely interdependent. Attention is as much an affective process as it is a cognitive one, and this initial affective framing of the environment is essential to engaging in adaptive cognitive appraisal that is relevant to long-term goals, and to other people.

### Emotional Episodes

The interdependent nature of emotion and cognition is also apparent in the enactive conceptualisation of emotional episodes. Emotional episodes are understood as another fundamental component of the sense making nature of the human organism; they are adaptive, and reflect the motivation to obtain benefits and avoid harms in the environment. According to Colombetti (2014), emotional episodes are best conceptualised as self-organising, dynamic patterns. This conceptualisation, like Lewis’s dynamic model of emotional episodes, draws on dynamic systems theory, where various neural and bodily (autonomic, muscular) processes are recruited in a self-organising manner. However, rather than the standard conceptualisation of appraisal and emotion as being separate systems at the neural level, they are understood as overlapping and ‘inextricably interconnected’. Thus, appraisal and the bodily components of emotion are so deeply integrated, that they are constitutive of each other: appraisal is inherently emotional and vice versa. Therefore, this

account is very similar to Prinz's *embodied appraisal* theory. In fact, Colombetti and Thompson (2008) even go as far as borrowing this terminology. On the bodily component of emotion, they write: "the bodily aspects of emotion are constitutive of the sense of personal significance traditionally provided by a disembodied appraisal. They are not an objective index of one's emotional state, but rather, subsume the lived bodily experience of meaning and evaluation" (Colombetti & Thompson 2008, pp. 58). However, from the enactive perspective, what Prinz (2004) refers to as 'judgements' (high-order, intellectual cognitions) cannot be separated from the emotional constituents of emotion. Even these highly intellectual processes are inherently emotional.

This conceptualisation is supported by neurological evidence suggesting an overlap in brain areas involved in cognition and emotion (Pessoa, 2013; 2015), or more specifically; deeply integrated, circular, reciprocal influences such that linear causation becomes indeterminable. Pessoa (2015) identifies a number of ways in which emotion and cognition are integrated in the brain. For example, one study found substantial overlap in areas of the medial PFC engaged during negative affect and cognitive control, in a meta-analysis of human neuroimaging studies (Shackman et al. 2011). In particular, he identifies the lateral PFC as a 'convergence site', where cognitive and emotional signals are integrated. On the integration of emotional and cognitive brain areas, Pessoa writes:

'(Emotion and cognition) and associated processes also appear, at first blush, to be subserved by fairly independent brain regions and circuits. Yet, when we consider the available neuroscientific data, attempts to characterize regions as either "emotional" or "cognitive" quickly break down. An architecture of rich interconnectivity leads to a structure-function mapping that is both one-to-many and many-to-one. Ultimately, looking at the brain from the perspective of one brain region at a time is bound to produce a highly

distorted and, more critically, impoverished description of the brain. What is required is a framework where cognition and emotion are highly interactive.'

In addition to neuropsychological evidence, the overlap between cognition and emotion is suggested to be more phenomenologically accurate than the standard perspective (Colombetti, 2014). During the experience of an emotional episode, it does not seem possible to separate an initial moment of appraisal, from the experience of a feeling. Rather, one experiences bodily feeling as the significance of something is evaluated. What this suggests, is that referring to 'cognition' alone is also an indirect reference to emotion, and vice versa. A person doesn't simply 'evaluate' something, or 'feel' a certain way. Appraisal is feeling and feeling is appraisal.

### The Empathic Nature of Emotions

Finally, in regards to the enactive understanding, emotions are understood as highly reciprocal, often involving interactions between two or more people (Colombetti 2014; Maiese, 2011). Because the mind is subsumed by a dynamic interaction between a person and their environment, and emotions are commonly experienced in relation to others, the perception of others' emotional expression and behaviour is an important modulator of emotional experience. As Colombetti suggests "Importantly, an organism can become coupled to another one (or other ones) via continuous reciprocal influences. In this case, we can talk of emotion forms instantiated by two (or more) organisms together in their coupling, with attractors that pull all organisms simultaneously into a specific interactive pattern." (Colombetti, 2014, p. 70). This process is likened by Maiese (2011) to a 'dance' between people, as expression, behaviour and feelings become synchronized. As Colombetti



notes however, this is not a direct experience of the other person's emotion, it is an empathic response: "It is as if the others' feelings, which I usually experience as nonprimordial...become "live to me" like my own feelings." (Colombetti, 2014, p. 181). Thus emotions are an essential feature of empathic responses. According to Marshall et al.'s (1995) model of empathy, empathy is a process of four unfolding stages: the ability to recognize another person's emotional state, the ability to take the other person's perspective, an affective response to the other person's emotional state, and an attempt to ameliorate the other person's distress. It should be noted that the model refers exclusively to empathic responses to pain/distress (empathy may also refer to the ability to recognise positive emotions, meaning the last stage of the model is specific to negative emotions). As implied by the model, empathy requires certain abilities, namely an ability to recognize emotions in others, and to take their perspective. Thus, if a person lacks these affect-based capacities, empathy becomes very difficult to experience, as Maeise (2014) suggests is the case for psychopaths.

## Conclusion

In conclusion, affective science and the enactive philosophy of the mind have established a much more enriched, empirically supported, and phenomenologically accurate understanding of emotion, than what was apparent in the 20<sup>th</sup> century. Following the disregard for the body and subjective experience during the cognitivist era, neo-Jamesian theories have highlighted the functional role of the body in emotions (Damasio 1994; Prinz, 2004), and dynamic systems theories have highlighted the dynamic, self-organising nature of emotional experience (Lewis, 2005). Drawing on both of these concepts, as well as biology and phenomenological philosophy, the enactive perspective has proposed that the

whole human organism brings forth meaning through reciprocal interactions with the environment. This process of sense-making is guided by both a core affectivity that orientates us toward personally-significant features of the environment, and emotional episodes that serve as embodied appraisals. The cognitive and emotional components of emotional episodes are not only dynamically integrated, they are so deeply integrated that they are constitutive of each other, both in a phenomenological (Colombetti, 2014), and neurobiological sense (Pessoa, 2013). .

## Chapter 3: General and Forensic Treatment Approaches to Emotion and Cognition

The dynamic, deeply integrated, and constitutive relationship between emotion and cognition, emphasised by embodied and enactive emotion theorists suggests that both of these components, or rather, both of these constituents of the mind should hold an equal, and highly interactive place in psychological/forensic treatment. In terms of psychological treatment generally, while CBT-based interventions remain dominant, Process-Experiential/Emotion-Focused (PE-EFT) Therapy, pioneered by Greenberg and colleagues (1993, 2007) has provided a form of treatment that utilizes the dynamic cognition-emotion relationship. However, this approach has not been applied to the treatment of offender/correctional populations. This is likely because PE-EFT is a humanistic form of therapy, with an emphasis on individual values and experience. In a correctional context, this would likely conflict with the focus on risk management, which is generally addressed through the pragmatic targeting of particular deficits (Ward, in press). This is exemplified in the popular Risk-Need-Responsivity (RNR) rehabilitation model (Andrews & Bonta, 2010), which employs a highly empirical and pragmatic approach to treatment. The RNR has spawned a number of cognitive skills programs for offenders, including the Reasoning and Rehabilitation (R&R) program developed by Ross and Colleagues (1985; 2016). As its' name implies, R&R emphasises cognitive-behavioural techniques, and relatively few experiential

ones. The following chapter will examine both PE-EFT and cognitive skills programs, using the example of R&R, and assess their compatibility with the recent advances in cognitive and affective science.

### Process Experiential-Emotion Focussed Therapy

PE-EFT was developed through three decades of research, and its efficacy has been empirically well supported, including for emotional disorders such as depression and social anxiety, and adult trauma resulting from childhood abuse (Paivio & Nieuwenhuis, 2001; Greenberg & Watson, 1998; Greenberg, Elliott, & Lietaer 1994; MacLeod, Elliot, & Rodgers, 2012). Elliott and Greenberg (2007) propose five essential features of PE-EFT: understanding process-experiential emotion theory, Identifying with humanistic values, adopting a person-centred but process-guiding relational stance, using an exploratory response style, and following a marker-guided task strategy.

The emotion theory that underlies PE-EFT is known as *Process-Experiential emotion theory* (PE; Greenberg, 2002). While there are some comparable ideas, this school of emotion theory is not rooted in the enactive philosophy of the mind, rather, PE has its foundations in the work of ‘appraisal theorists’, including Ellsworth (1994) and Fridja (1986), as well as dynamic systems theory. One of the core ideas of PE theory is that the appraisal, feeling, and motor expression components of emotion are not temporally distinct components, and therefore, there is no linear causal sequence between them. According to Greenberg (2002), this is because: “There is no reason to believe that all of the bodily feedback will reach the brain before any subjective feeling results, that the interpretation of the situation must be completed before the body can begin to respond, or that a complex emotional experience

must occur before interpretation can begin” (pp. 154-189). Thus, rather than a sequence of discrete components, these components are understood as unfolding dynamically over time; continually influencing each other until an emotional experience can be consciously identified. Attention, understood as simple perceptual appraisal (Greenberg 2002; Ellsworth, 1994), serves as an entry point for an emotional episode, where attentional focus causes a change in neural circuitry, and corresponding changes in the body. Following this initial appraisal, a string of appraisals may unfold, with corresponding changes in feeling and the body, eventuating in an emotional episode. Thus, for Greenberg (2002), an emotional experience is a process of *construction*, where a person is a self-organising system that integrates brain, feeling, and bodily processes to create experience. In light of this, she suggests that “Debates about the primacy of cognition, bodily responses, or affect...make little sense” (Greenberg, 2002, pp. 154-189). This process of construction is therefore somewhat synonymous with enaction, as experience is understood as being brought forth through the dynamic integration of the mind and body.

### Compatibility of Process-Experiential Emotion Theory and Enactivism

Despite the similarities discussed, these are nonetheless fundamentally distinct schools of thought. Greenberg, while rejecting the discrete temporal division of emotion, physiological arousal, and cognition as Lewis (2005) does, and viewing emotion as a self-organising, dynamic process of “construction”, still views cognition and emotion as distinct components (as Colombetti and Thompson would suggest). This perspective is challenged by Pessoa’s (2013; 2015) previously mentioned mapping of cognitive and emotional brain areas. In addition, while highlighting the importance of the body in emotional experience, she does

not claim that the mind is embodied in the enactive sense. The mind is understood as containing highly integrated cognitive, emotional and physiological components, comparable to Colombetti's phenomenological account of emotional episodes. However, these are essentially restricted to the human organism, and do not, in philosophical terms, extend structurally to the environment.

Further, drawing on the work of appraisal theorists (Fridja, 1986; Ellsworth, 1994) attentional focus is understood, not as reflecting a core affective disposition, but as a process of simple perceptual appraisals. For Ellsworth (1994) these simple appraisals are "a sense of attention or novelty, a sense of attraction or aversion, a sense of uncertainty" (pp. 222-229). At face value, from an enactive perspective, these appear to be describing affective processes. This, it would be argued by Maiese (2011; 2014), is because the arousal of attention needs to be driven by core *feelings* of personal significance. The ability to focus on (frame) personally-significant features of the subjective world, would be non-existent without these feelings. However, Greenberg, Fridja, and Ellsworth are not proponents of the view that cognitive appraisal is constitutive of emotion. Therefore, appraisal is understood as a strictly cognitive process, and cannot be classed as an affective one. This is an important point of difference, because the enactivist perspective recognises the importance of an individual's core affective disposition in framing a situation in a subjective affective tone. This is the foundation of all deeper emotional patterns or episodes, and all higher order cognitive processes (reasoning, deliberation), and therefore, it pervades all aspects of behaviour. Different people will focus on different features of other people's speech and behaviour, leading to potentially vastly different interpretations. This would appear to have significant implications in a therapeutic context, as attempting to facilitate change in, or reflection on affective framing would be an essential factor in facilitating behaviour change.

## Emotional Schemes and Reactions

Additionally, the concepts of *emotional schemes* and *emotional reactions* (Greenberg & Korman, 1993; Elliot & Greenberg, 2007) are essential to PE theory, and have more specific practical implications. Emotional schemes are “implicit, idiosyncratic structures of human experience that serve as the basis for self-organization, including consciousness, action, and identity” (Elliott & Greenberg, 2007, pp. 241-254). Thus, they are structures built through past experience, and synthesise the typically recognised components of an emotional episode; physiological, emotional, cognitive, and action. Considering this, there are many parallels between emotional schemes and the enactive conceptualisation of emotional patterns. Emotional patterns from an enactive perspective also serve as a basis for self-organisation, are sense-making (consciousness, action, identity), and are also built through past experience; cognitive-emotional-bodily connections that arise during emotional patterns will modulate and constrain future patterns. The only obvious point of difference it seems, is that emotions never exist as structures in memory, or repositories from an enactive perspective. Each emotional pattern is unique to a particular sensorimotor coupling of a person and their environment, and is not determined, but modulated by past experience (Colombetti, 2014). Of course, Greenberg and colleagues do not claim that emotional schemes are re-experienced in a homogenous manner. Nevertheless, the conceptualisation of emotions as discrete structures that can be reactivated is at odds with Colombetti’s view that emotions are always unique patterns, a view that appears to be more phenomenologically accurate than the former. There are subtle differences in the

experience of emotions that one may class as the same emotion (Colombetti, 2014), suggesting that the constraints of an individual's situation or environment are an essential element of emotional experience, in addition to the brain-body connections built through past experience.

A situational component is, in fact, recognised in PE theory's emotional schemes. However, rather than being understood as a constitutive element of the embodied, extended mind, that modulates experience, this component is understood simply as an eliciting stimuli.

Stimuli will come to elicit emotional schemes through automatic associative processes that are initiated with simple perceptual appraisals, producing primary neural responses.

Therapists will attempt to help clients understand and reflect on these schemes and change them through empathic listening and emotive interventions.

Emotional reactions of clients are assessed through 'empathic attunement' to their emotional expressions when presented with particular situations. Emotional reactions are classed as *primary adaptive emotions*: the "most direct and useful" (Elliott & Greenberg, pp. 241-254) emotional responses (e.g. happiness in response to a friendly gesture), *secondary reactive emotions*: a secondary emotional response to a more primary emotion (e.g. guilt in response to anger), and *primary maladaptive emotions*: direct emotions that arise through misappraisal and are therefore inappropriate for a particular situation (anger in response to a neutral gesture). In terms of therapy, primary adaptive emotions are encouraged and activated, as they shape adaptive behaviour. Secondary reactive emotions will require deeper empathic exploration in order to uncover primary emotions, and primary maladaptive emotions are to be explored in order to understand and reflect on their maladaptive nature.



### Compatibility of Greenberg's Theory and Enactivism in Informing Psychotherapy

Despite their differences, Greenberg's theory is not incompatible with those of Colombetti, Thompson, and Maiese in terms of informing psychotherapy. Importantly, both claim that emotion is highly integrated with cognition, and cannot be separated temporally in a structural or phenomenological sense. This suggests that emotion-based techniques in therapy should hold an equally important, and complementary place to cognitive-based techniques. Further, whether the emotion-cognition relationship is viewed as a constitutive one or simply a dynamic one, both theories suggest that emotional techniques should be integrated with cognitive ones. A reference to one is also an indirect reference to the other, and changing the state of one, will bring about a change in the other.

The *core values* of PE-EFT are based on humanistic principles, and encourage an open, empathic relationship between therapist and client, and fostering change through emotional awareness. In addition, PE-EFT incorporates the philosophy of Dialectical Constructivism (Elliott & Greenberg, 1997), where people are understood as being composed of multiple parts or 'voices', which in the context of therapy, represent conflicting orientations towards stability or change. Thus, therapy will often involve "supporting a growth-oriented voice in conflict with a more dominant, negative voice that attempts to maintain the stability of familiar but negative states" (Elliot & Greenberg, 2007, pp. 243). Importantly, though Dialectical Constructivism does not recognise emotions as embodied appraisals in a technical sense, they are viewed as highly contingent with cognitive appraisal. Different emotional states will elicit completely different, and largely conflicting cognitions. Reflection on this conflict would appear particularly important,

because the attribution of maladaptive or irrational thoughts to acute emotional states should assist recognition of these thoughts as maladaptive. This does not imply that the cognitive processes elicited by emotional states (all of them) are irrational and maladaptive. These thoughts will be influenced by the valence, intensity, duration, and frequency of these emotional states (Gross & Jazaieri, 2014). The positive 'change voice' should be contingent with positive emotional states, and must be *felt* positively, as well as simply rehearsed verbally, in order to motivate change. There is also the possibility that the change voice requires some healthy negative emotions to be effective. In the forensic field, perhaps the change voice will reflect healthy and empathic negatively-valenced emotions (guilt, remorse, empathy).

### Core Values of PE-EFT

The core values of PE-EFT are:

- *Experiencing* is an ever-changing, dynamic synthesis of multiple emotion schemes, reflecting an individual's key emotional states. The synthesis of emotion schemes is comparable to the enactive view that past patterns of emotional experience will strengthen neural and bodily connections, modulating and constraining future patterns.
- *Presence/Authenticity* reflects a therapist-client relationship based on human attachment processes. Trust, emotiveness, and openness are encouraged, allowing an open dialogue between client and therapist that will facilitate change.

- *Agency/self-determination* is understood as an evolutionarily adaptive motivation to explore and master situations, and adaptive decision making will be fostered with open dialogue between different aspects (voices) of the self.
- *Wholeness* is understood as adaptive and mediated by emotion. Rather than reflecting an executive, singular self, wholeness stems from reflective dialog among distinct parts.
- *Pluralism/diversity* is encouraged within and between people, reflecting the ideals of social equality and empowerment.
- *Growth* is supported curiosity and adaptive emotions, and will involve increasing differentiation and adaptive flexibility.

The *Person-centred but Process Guiding Relational Stance* refers to the emphasis on the client's experience as an autonomous agent, and the facilitation of self-reflection and awareness, in a way that encourages initiative. At the same time, the therapist will act as an experiential guide, using emotional expertise to work towards change, hence the term 'process guiding'.

Central to process guiding is the dynamic of following and leading. Following refers to the tracking of the clients experience through empathic attunement, while leading refers to the feedback and guidance given by the therapist on the clients reported experience, without being commanding, controlling, or manipulative. Following is essentially for client

autonomy, while leading is essential for the client's progress. The therapist will try to integrate both these aspects of therapy in a way that is analogous with a dance (Elliot & Greenberg, 2007); therapist and client will alternate between following and leading such that the two may become indistinguishable.

This relational stance is implemented through the *Empathic Exploratory Response Style* of the therapist, a response style that is unique to experiential therapy. The aim is for the therapist to communicate empathy for the client, while simultaneously encouraging the exploration of the client's experience. This involves the therapist speaking empathically as the client: 'it's like, I feel...is that what it feels like?', and questions that promote self-exploration: 'What are you experiencing now?', 'Where can you feel it in your body?'

The final feature of PE-EFT is the *Marker-Guided, Evidence-Based Task Strategy*. Markers are "in-session behaviours that signal that the client is ready to work on a particular problem, or task" (Elliott & Greenberg, 2007, pp. 241-254). For example, a 'self-critical split marker' is where one part of person (critic) criticizes another part (experiencer). Tasks are the immediate goals of the therapy session, such as resolving dialectical conflict between different parts of the client. These tasks are evidence-based, as they are developed to address the particular problems indicated by markers. Thus, the therapist will follow the markers of the client to identify tasks, then guide the client through these tasks.

Tasks are resolved through a series of steps taken by clients, which have been identified by previous research (Rice & Greenberg, 1984). As each step is carried out, the therapist will respond in a way that facilitates the completion of the step. For example, once criticisms of the self are clearly expressed, the therapist may facilitate a Two-chair Dialogue, where the client moves between speaking as the critic and the experiencer. Elliott et al. (2004) identify

13 possible therapy tasks, with markers and client/therapist responses associated with different steps.

### Emotion in Forensic Practice

The PE-EFT approach has provided an experience-based form of therapy that recognises the importance of emotions in eliciting both adaptive and maladaptive cognitive-behavioural patterns. However, it is evident that this approach has not been paralleled in the correctional field. Cognitive-based techniques are most often prioritized in rehabilitation programs over emotional ones (Ward, in press). Further, when emotion is considered, it tends to be regarded as problematic for offenders (Ward, in press); something that is too intense or frequent, and something that interferes with rational decision making. Therefore emotion *regulation* is a common approach taken by these programs (Ross & Fabiano, 1985).

Ward (2017) suggests there are three main reasons for this. Firstly, the emphasis on risk prediction and management in correctional practice has resulted in the neglect of strength-based interventions that reflect what is meaningful to individuals (involving positively-valenced emotions). Second, the segmentation of treatment programs into individual components such as emotional regulation and interpersonal functioning, has led to a focus on particular problem areas, rather than broader values and goals. Finally, because correctional practice has reflected pragmatic concerns, treatment theories and approaches have been developing from Risk-Need-Responsivity-based studies that target particular problem areas, resulting in a lack of awareness of how current affective science can inform treatment.

### Risk-Need-Responsivity

The Risk-Need-Responsivity (RNR) approach (Andrews & Bonta, 2010) is currently the most popular offender rehabilitation framework. The RNR was developed through decades of research on 'what works' in offender treatment, that is, what reduces recidivism. The RNR approach is based on three basic principles. The *Risk* principle is that treatment should be allocated according to risk, because targeting high-risk offenders will reduce more offending. Thus, medium-to-high-risk offenders will be screened using psychometric risk tools, and targeted. The *Need* principle refers to targeting Criminogenic Needs; these are the dynamic (subject to change) risk factors of offenders that have, through meta-analytic studies, shown a strong empirical link with offending. The *Responsivity* principle is that interventions need to be shaped to fit the characteristics of individuals (age, gender, intelligence, mental disorders), such that they maximise engagement.

The RNR approach therefore reflects a commitment to empiricism and pragmatism, where research and treatment is focused primarily on what reduces offending, and empirical evidence is emphasised over clinical judgement. This approach, perhaps unsurprisingly, has proven to be highly effective (Andrews & Bonta, 2010), hence its popularity. However, it is also unsurprising that this approach has not, as Ward (2017) suggests, allowed a focus on individual values and personal meaning, and that experiential therapies such as PE-EFT do not share the prominence of cognitive-behavioural techniques. If reducing recidivism through highly pragmatic means is the objective, humanistic principles will likely, and have indeed become far less significant than risk-management. However, to focus solely on client values and experience, at the expense of risk-management would be a mistake, and a step backwards towards unreliable clinical judgment. Therefore, a balance between personal values and experience, and risk management should be the ideal.

The theory of criminal behaviour underlying most RNR-based approaches is Cognitive Social Learning (CSL) theory (Bandura, 2001; McGuire, 2006). CSL theory understands criminal behaviour as learned behaviour that is imitated and reinforced through socialization and interpersonal interaction (McGuire, 2006). Thus, particular cognitive-behavioural deficits will develop over time if maladaptive behaviour is sufficiently reinforced, and adaptive behaviour is not. Following CSL theory, Cognitive-based interventions will target the cognitive deficits that have been found to be prevalent in offender populations (Ross & Fabiano, 1985). The RNR model's focus on learning and reinforcement has the advantage of providing a simplistic and precise treatment approach, where specific deficits can be targeted according to behavioural reinforcement. What is not emphasised in the model, is a consideration of deeper, broader values and goals that motivate, not only various forms of antisocial and maladaptive behaviour, but are able to capture what may motivate an individual to change. As will be discussed, an exploration of individual experience appears crucial for the facilitation of prosocial change.

### Reasoning and Rehabilitation

An example of the typical approach to cognition and emotion in offender rehabilitation programs can be found in Ross & Fabiano's (1985) Reasoning & Rehabilitation (R&R) program. R&R is a popular cognitive-behavioural program that has been delivered to more than seventy-five thousand offenders for over two decades. Since its original conception, a number of new specialised editions have been developed, including the R&R2 Short Version for Adults (Ross et al., 2016). To its credit, the revised version includes a number of additional emotional components, which are aimed at increasing "emphasis on the role of emotion in competent and prosocial behaviour" (Ross et al., 2016). The efficacy of the R&R

program has been demonstrated in a large body of evidence (Tong & Farrington, 2006; Antonowicz, 2005). Tong and Farrington's (2006) meta-analysis of 16 R&R program evaluations found an overall 14% (significant) decrease in recidivism for programme participants compared with controls. The aim of the R&R is to teach offenders prosocial skills and values that will challenge their antisocial or maladaptive thinking, and lead to prosocial behaviour change. Thus, the program is based on the idea that offending is linked to particular cognitive deficits. This idea is supported by extensive literature suggesting that many offenders experience significant developmental delays in acquiring adaptive cognitive skills (Ross & Fabiano, 1985). Ross and Colleagues (1985;2016) suggest that the following cognitive-behavioural deficits or tendencies are characteristic of offenders:

- *Impulsivity*: responding to immediate ideas and 'desires' without reasoning and reappraisal, and a lack of reflection on behaviour and its consequences.
- *Externality*: the attribution of a person's own behaviour to external factors (other people, circumstance), and therefore, a sense of powerlessness or lack of personal responsibility/autonomy.
- *Concrete Thinking*: a lack of abstract reasoning will lead to difficulties understanding the concepts of justice and law, and in understanding other people's thoughts and feelings (empathy).
- *Conceptual Rigidity*: rigid, narrow, and intolerant thinking will lead to a persistence in antisocial and maladaptive behaviour.
- *Interpersonal Cognitive Problem-Solving Skills*: a lack of the cognitive skills required to resolve interpersonal problems. One may not accurately identify the consequences of their behaviour on others, and will therefore fail to consider prosocial alternatives.



- *Egocentricity*: a self-centred disposition that impedes the ability to empathise with the thoughts and feelings of others, causing interpersonal problems and alienation.
- *Values*: may be based on personal significance and gain only (egocentric), rather than how things affect others.
- *Critical Reasoning*: irrational thinking and a lack of self-reflection will make it difficult to reappraise actions, and lead to reckless/harmful behaviour.

Ross et al. (2016) note that cognitive skill deficits are “neither a necessary, nor sufficient” (pp. 7) cause of crime, rather, these problems put individuals at greater risk of offending. This allows the consideration of environmental and structural factors (peers, substance abuse, unemployment) in explaining and addressing offending, which also show a strong empirical link with offending (Andrews & Bonta, 2010).

In going down this list of ‘cognitive’ deficits, references to emotion, both obvious, and more subtle and indirect, are readily apparent. Whether emotions and cognition are understood as overlapping and constitutive of each other or not (as in the R&R), it is evident that there is a tendency or bias in explaining behaviour through cognitive ‘heady’ processes, rather than emotional ones. This can be traced back to the ‘*thought* changes behaviour’ doctrine of the R&R, as a cognitive-behavioural program. This is largely parallel with the cognitivist view that beliefs and desires are the defining features of emotional episodes, and that these higher-order, intellectual processes will determine behaviour. Emotional feelings and physiological arousal are perhaps seen as the inferior, more primitive aspects of experience, and therefore, they are viewed as less important in facilitating behaviour change, and more often as a hindrance to reasoning and rational thought.

In regards to the cognitive deficits identified by Ross and colleagues however, it is apparent that as cognition is essentially constitutive of emotion, all of them should be classed as both cognitive *and* emotional deficits. This does not mean that referring to and targeting cognition exclusively in treatment modules, will not also address emotional deficits. Current emotion theory and research suggests that because emotion and cognition are so deeply integrated (Pessoa, 2013; Colombetti, 2014) that if one is changed, the other must also change. Thus, cognitive treatment modules will directly affect the emotional processes that constitute cognitive deficits. However, this does mean that the treatment approaches are essentially one-dimensional, and therefore limited in scope. The cognition-emotion relationship works both ways; exploring the emotional elements of the mind will directly influence cognition. In addition, emotions are organism-wide phenomena that are essential for adaptive decision making (somatic markers; Damasio, 1994), moral reasoning and empathy (Maiese, 2014), and they allocate attention and frame situations in a particular affective tone (Maiese 2011; 2014). Therefore, both cognitive and emotional techniques integrated together, or cognitive-emotional techniques should be most effective in addressing particular deficits.

In elaborating on the classification of each deficit in more detail, it is apparent that emotional elements are contained within *all* of them:

*Impulsivity* presents a clear example of a deficit that encompasses both cognitive and emotional elements. This is not denied by Ross and Fabiano (1985), however, cognition is viewed as the primary causal factor, and the primary treatment target. As Maiese (2014) suggests, the impulsivity of psychopaths is likely related to their inability to attend to information in the environment that is relevant to long-term consequences. This deficit is an

affective one, because a situation is generally framed by psychopaths according to its relevance to immediate benefit, a deficit which may be present in impulsive offenders generally. In addition, because emotions are essential for motivation, they are essential in explaining impulsive behaviour. In fact, it is impossible to conceive of impulsivity without emotion, because the 'desires' that underlie the behaviour will always reflect subjective feelings of importance.

The emotional aspects of *externality* are less obvious. However, maladaptive beliefs about personal autonomy will surely correspond to *feelings* of powerlessness or hopelessness.

Addressing both the beliefs and the feelings will provide a more comprehensive approach.

*Concrete thinking* is perhaps classed more appropriately as a cognitive skill deficit. However, abstract reasoning as a high-order, highly intellectual process will still correspond to emotional experience in one way or another. For example, moral rules/laws need to be understood on both an intellectual and emotional level in order for them to be truly understood and obeyed, as psychopathy demonstrates (Maiese, 2014). Additionally, *moral* reasoning requires consideration of the emotional impact one's actions have on others (Maiese, 2014). This suggests that picking up on both deficient reasoning and the emotions (or lack of) that underlie this reasoning should be important for therapists if they are to address the problem.

*Conceptual rigidity* provides another clear example of a deficit that is both cognitive and emotional, not only in the sense of overlapping cognition and emotion. Rigidity of thinking is defined as an inability to consider alternative ways of thinking and behaving. Ross and Hilborn (2008) suggest that this "may reflect a cognitive problem – conceptual perseveration or rigidity: a tendency to maintain the same idea regardless of contrary

evidence” (pp. 111), and that these ideas are formed through previous experience.

However, is this a reduced cognitive capacity or a cognitive style that is constitutive of maladaptive emotional responses? If we consider the example of Obsessive-Compulsive Personality Disorder, research has indicated that the rigid thinking of these individuals is related to experiential avoidance; the avoidance of negative emotional experience (Wheaton & Pinto, 2016). Thus, it is likely that this cognitive style is a highly emotional one, and also likely that rigidity in thinking is produced by negative emotions, and the avoidance of them, in many individuals. Bigoted beliefs and intolerance of others will likely constitute strong negative feelings that impede the consideration of opposing points of view. Rigid ‘beliefs’ in cognitive terms are a reflection of a cognitive-emotional deficit, and the emotional element should be essential to treatment.

Certain emotional capacities are essential for adequate *Interpersonal Cognitive Problem-Solving Skills*. In fact, there is a strong argument for highly emotional capacities being more essential for interpersonal problem-solving than colder, intellectual ones. As Maiese (2014) suggests, it is reduced affective capacities that prevent psychopaths from picking up on the feelings of others, and empathizing with them, leaving them at risk of engaging in immoral behaviour. They are sufficiently capable of comprehending the impact of behaviour of others on an intellectual level. It is their affective framing deficits that prevent them from comprehending the emotional significance of their actions. Also, other individuals may have particular affective orientations that give them a tendency to frame situations in a maladaptive way. Referring back to a previous example, an individual may have a tendency to attend to signs of hostility in others and interpret neutral gestures as hostile. In order to solve interpersonal problems, an individual needs to understand the thoughts and feelings of others on an emotional level. Empathy is an emotional capacity (Maiese, 2011; 2014;

Colombetti 2014). An individual's core affect is therefore essential in adaptive interpersonal functioning, and should be at the forefront of trying to address interpersonal dysfunction.

*Egocentricity* reflects an inability to empathise with others, and sometimes maladaptive emotions about one's self. Again, psychopaths and other offenders with affective framing deficits may have a reduced capacity to recognise emotions in others, causing an inability to empathise and egocentricity. However, narcissistic individuals, who are also prevalent in forensic populations (Hepper et al., 2014), and display low empathy and egocentricity, do not have the same affective deficits as psychopaths (He & Zhu, 2016; Lishner et al., 2015). The egocentrism of narcissists reflects an inflated and usually vulnerable sense of self-worth, which may cause them to disengage from the feelings of others (He & Zhu, 2016), and giving them attentional biases (affective framing) towards both positive and negative evaluations from others (Krusemark et al., 2015). Understanding the various affective problems that underlie egocentricity will be crucial if it is to be addressed effectively.

It would likely be counterintuitive to most emotion theorists and researchers to see *values* classified under 'cognitive skills'. Values by definition, reflect what a person cares about; what is important to them (Ward, in press). Therefore they reflect deep, implicit feelings (core affect), and will motivate people's interactions with others and the world. Values, therefore, are not a 'skill' that can be taught. They will likely be highly resistant to change, and if they are to be enhanced, *feelings* about the self, about others, and what is important will need to change. Or, if existing values are to be expressed in more prosocial ways, alternative ways to emotionally satisfy values should be explored.

*Critical Reasoning* is unlikely to be considered a very emotional process by many CBT therapists. Like abstract reasoning, this a high-order, highly intellectual capacity. However,

adaptive self-criticism also requires emotional intelligence (Gross & Jazaieri, 2014): reflection on how one's own feelings motivate behaviour, how feelings may correspond to maladaptive or irrational thinking, and the emotional impact of behaviour on others (Maiese, 2014). Further, adaptive bodily feelings may be required to make appropriate decisions, as Damasio's (1994) card gambling task with VMF patients demonstrates. Therefore, even critical reasoning should be considered both a cognitive and emotional capacity, and addressed in treatment accordingly.

### Program content of R&R

The R&R program is implemented in 35 small group, 90-minute sessions, while the R&R2 is completed in 14 sessions. Cognitive skills are taught using worksheets, dilemma games, cognitive exercises/puzzles, board games examining values, and role playing. These techniques are all based on Socratic discussion; rather than program coaches telling an answer, they will pose a question in order to elicit an answer through discussion.

*Prosocial Modelling and Role-playing exercises* engage participants in assisting the training of other participants, based on the principle that teaching skills to others is a highly effective way to learn these skills for one's self. This principle draws on neuroscientific evidence suggesting that prosocial neural connections are formed both by observing and engaging in prosocial behaviour (Ross et al., 2016). The effectiveness of role-playing has been demonstrated by meta-analyses of rehabilitation programs, which indicates it is key in determining the overall success of a particular program, and that this approach reduces recidivism (Antonowicz and Ross, 1994). Thus, this appears to be one of the key strengths of the program. This approach is highly compatible with the concept of embodiment, that is, the mind being constitutive of the sensorimotor coupling of the whole organism and its

environment. This is because motor action, in this case speaking and acting towards others in a prosocial manner, is constitutive of the mind, and will, as Ross et al. (2016) suggest, modulate neural activity and connections, increasing the likelihood that these actions will be taken in future. Thus there is both a strong empirical, and theoretical basis for the 'doing is better than observing' principle of the R&R. The program also suggests it is essential for therapists to model prosocial behaviour, as the client-therapist relationship also provides opportunities to learn.

The major cognitive skill components of the R&R include:

- Self-control: Targets impulsive behaviour. Offenders are taught to “stop and think” before acting, to consider consequences, and to use thinking techniques to control their emotions and behaviour. This component presents an example of the typical mantra of cognitive skills programs: emotions are problematic and impede rational thinking, therefore, they need to be controlled. This does not mean there is no value in learning to reconsider emotional urges, however the proposed solution is very much focused on cognition alone. Self-control has been revised in the R&R2, as discussed later in this section.
- Meta-cognition: Offenders are taught to critically assess their own thinking, to “realize that how they think determines what they think, how they feel and how they behave” (Ross & Fabiano, 2016, pp. 8), and cognitive self-regulation strategies. Thus, this is a broad technique aimed at addressing many cognitive deficits. Once again however, to be truly comprehensive, this technique should include an additional, integrated focus on emotion, as affective processes constitute all cognitive deficits and corresponding treatment techniques.

- Critical Reasoning: Offenders are taught how to think logically and rationally without distortion or denial. As addressed in the previous section on deficits, while this is a highly cognitive technique, it is not exclusively so, particularly in the case of moral reasoning (Maiese, 2014).
- Social Skills: based on Goldstein's Structured Learning Therapy program, various social skills are taught so that offenders will achieve positive reinforcement for these skills, and be less alienated from prosocial peers. As discussed, modelling and role-playing exercises are a key strength of the R&R program, engaging both the mind and body in a comprehensive way. In addition, positive reinforcement utilises positively-valenced emotions to change the emotional patterns activated during prosocial interactions.
- Interpersonal Cognitive Problem-Solving Skills. Based on work with heroin-abusing offenders (Platt, Perry, & Metzger, 1980), offenders are taught to resolve interpersonal problems; how to understand others' values, behaviour and feelings, and how their own behaviour affects others. The work of Platt and colleagues involves various cognitive skills, with an emphasis on 'how to think'. While values and feelings are emphasised in terms of cognition, skills such as Perspective Taking (Platt & Hermalin, 1989) and various other techniques, involve various emotional processes that are largely overlooked or underemphasised. For instance, using Perspective Taking as an example, Maiese's (2014) work on psychopathy demonstrates that the ability to understand the perspectives of others is made relatively inconsequential for prosocial behaviour if empathic responses to emotion are deficient. Interpersonal interactions are largely affective phenomena, and emotions are moderated by the bodily and behavioural expressions of others



(Colombetti, 2014; Maiese 2014). Focusing on cognitive techniques alone is unlikely to provide comprehensive tools for offenders to solve interpersonal problems.

- Creative Thinking: To address conceptual rigidity, various techniques taken from deBono's (1967) work are used to teach offenders alternative thinking; how to consider prosocial rather than antisocial ways of responding to problems. While the ability to think of appropriate alternatives may be important, having the motivation to engage in alternative actions is essential for prosocial behaviour. This is where emotion enters the equation. The negative emotions underlying problematic and rigid beliefs, and their origin, should be explored by coaches. If these underlying emotions are not addressed, alternative thoughts/solutions, even if considered, may lack the corresponding motivating emotions needed for offenders to actually engage in these alternatives.
- Social Perspective-taking: The program as a whole aims to improve empathic capacities; the ability to consider other people's views, feelings, and thoughts. The constitutive interdependence of cognition and emotion suggests that rather than understanding the thoughts and feelings of others as distinct, offenders would benefit from understanding the feelings of others that correspond to certain thoughts and beliefs, and vice-versa. The tendency to understand intellectually, but not care about the thoughts of others amongst psychopathic individuals (Maiese, 2014), demonstrates how understanding the emotional aspects of the beliefs and thoughts of others is essential for empathic capacities.
- Values Enhancement: Socratic discussion techniques and games are used to teach values, that is, values that are prosocial and less egocentric. While the exploration of the values of offenders that may underlie antisocial behaviour is important, changing

what is valuable and meaningful to offenders may be a highly difficult task. Values are deeply held, and are likely to be highly resistant to change. Additionally, it may not be the values themselves specifically, but the way they are expressed that is problematic. For instance, for a violent offender, valuing power is not necessarily problematic, but using violence as a way to achieve a sense of power is. Perhaps a more pragmatic approach, would be to focus on how values can be expressed in a way that is prosocial and healthy (Ward et al., 2012). This approach maintains a sense of personal meaning for the client and therefore may be more likely to engage them in treatment.

- Emotional Management: The program uses modified anger management techniques, so that they can be used by trainers who are not psychologists, and be used with other problematic emotions – anxiety, depression, excitement. This component has been revised in the R&R2, and is addressed in the following section.
- Helper Therapy: suitable antisocial offenders may be placed in roles in which they behave as prosocial individuals. Rather than acting as patients, they are asked to be therapists or teachers for others, and help those who are more vulnerable. This is based on the simple philosophy that ‘doing is better than observing’ when it comes to learning prosocial behaviour, a notable strength of the program that is well aligned with current embodied emotion theory.

The R&R model, while being supported by a large body of research, does not align overly well with recent advances in cognitive and affective science. The cognitive deficits identified by the model to be targeted in treatment, constitute affective processes that are essential in understanding the mechanisms of these deficits in antisocial behaviour, most of which are largely overlooked. Unsurprisingly, the treatment components of the

R&R also fail to provide a comprehensive and integrated approach that utilises embodied cognitive-emotional techniques. However, the flaws and limitations of the prioritization of cognition in the R&R are recognised by Ross and colleagues, which lead to a number of changes in a revised model that highlights the importance of emotion as an element of the mind, and as an aspect of treatment.

#### **R&R2: Neurocriminology Model, Dual Process Model, and the Role of Emotion**

A number of treatment components have been reconceptualised in the R&R2 based on further research. This includes a revised model of cognition: the 'neurocriminology' model. This model "integrates recent research not only on the relation between cognitive factors and crime, but also on neurodevelopment factors, social environmental factors, experiential factors, and emotional factors that are known to be associated with antisocial behaviour" (Antonowicz and Parker, 2015, pp. 16). In accordance with recent advances in cognitive and affective science, the integration of neurodevelopmental, phenomenological, and emotional research into the standard cognitive-behavioural conceptualisation of antisocial behaviour, provides a much stronger theoretical basis for the treatment components of R&R2. As discussed in the previous chapter, recent neuroscientific evidence (Pessoa, 2013; 2015), and the consideration of phenomenological accounts of emotion (Colombetti, 2014), demonstrate the deeply integrated, constitutive relationship between cognition and emotion in the brain, and the mind respectively. The enactive account of the mind understands the brain, the body, and a person's surrounding environment as dynamically influencing and constraining elements of an embodied mind. Through self-organisation, these elements create patterns that cannot be separated into emotional or

cognitive categories. Rather, the relationship between emotional and cognitive elements is non-linear, simultaneous, and constitutively dependent.

However, while R&R2 has aligned itself more with embodied accounts of cognition/emotion, the questions to consider are: to what extent do the neurocriminology model and enactive theory align? Further, how has this alignment established or refined emotional treatment components? Finally, if R&R2 has fallen short in some areas, how can embodied theories of emotion inform R&R and other cognitive skills programs?

In terms of emotion, the R&R2 includes a number of revisions to emphasise the role of emotion in both antisocial and adaptive/prosocial behaviour. R&R researchers Antonowicz and Parker (2015) concede that most cognitive skills programs are under the assumption that thinking causes behaviour and feelings, essentially a cognitivist position. However, based on neuroscientific accounts of emotion (Damasio 1994; LeDoux, 2002), they now reject this position and emphasise the importance of emotion and its' deep integration with cognition:

"We now know that the emotions play a central role in human thinking and decision making, a role that is just as, or even more important than reasoning. Indeed reason and emotion cannot be separated any more than can brain and mind" (Antonowicz and Parker, 2015, pp. 122).

From an embodied cognition perspective, these concessions appear promising. They seemingly describe some version of an embodied account of emotion, where cognition and emotion constitute each other. However, the Neurocriminology Model does not make the same fundamental theoretical (or philosophical) claims as an enactive account of embodiment. Rather, it draws on the *Dual Process Model* (DPM; Epstein, 1999) of the mind.

In regards to emotion, the DPM largely resembles a neo-Jamesian account. Emotion is understood as essential in motivating and directing human behaviour, to the point of having primacy over cognition in the mind and brain. Deep brain areas and physiological responses are activated prior to conscious awareness of feelings, and the engagement of cognitive brain areas.

In the DPM however, the distinction is not made based on whether each system is cognitive or emotional specifically. Rather, they are conceptualised as conscious and preconscious 'minds' corresponding to what are suggested to be two distinct neurobiological systems (Epstein, 1999). Essentially, the DPM presents a dichotomy between a preconscious, automatic, highly emotional system; and a conscious, controlled, rational, deliberative, generally unemotional system. These two systems have been given various labels by DP theorists, including the 'experiential' and 'rational' minds (Epstein, 1999), and the X-system (reflexive) and C-system (reflective; Lieberman, 2007). However, Antonowicz and Parker (2015) prefer that they are labelled as the AT (automatic) system, and the RT (rational) system). The AT system is understood as the dominant system, responsible for emotional episodes and regular or routine daily behaviour. Neuroscientific evidence has indicated that about 97% of daily behaviour is automatic (Bargh, 2006). Thus, the DPM, like enactive theory, has completely reconceptualised the role of emotion as regarded by cognitivist theorists. Not only is emotion understood as essential for adaptive behaviour, it is the dominant force of the mind.

## R&R2 Revisions of Treatment Components

One of the influences of the DPM on the R&R2 is apparent in the treatment module/cognitive skill *Consequential Thinking*, which is included in the R&R2 as a revision of the Self-Control component of the R&R. The Self-Control component of the R&R was based on training offenders to 'stop and think' before they act, rather than acting impulsively on intuition. However, Ross et al. (2016) suggest this was based on an erroneous assumption; that impulsive offenders do not think before acting. More recent research by Ross and Hilborn (2008) indicates that rather than acting without thinking, they think in an automatic, unskilled and antisocial manner, and fail to consider the probable negative consequences of their actions. Therefore, moving from unskilled, Automatic Thinking to Skilled Thinking is considered a more effective approach.

This treatment approach is based on a very simple, and logical principle: thinking about the consequences of one's antisocial actions will make it less likely that they will be carried out. What is also apparent, but not emphasised in this module, is that consequential thinking will correspond to an emotional response, and is necessary in order to motivate alternative action. In other words, weighing up the potential costs and benefits involves weighing up emotional responses. If an individual is trained to think of consequences when feeling the urge to engage in antisocial behaviour, but they feel in a particular scenario that these consequences are unimportant relative to perceived benefits, consequential thinking is unlikely to change behaviour. For example, when dealing with low-empathy offenders, thinking about the consequences for one's self are likely to be much more effective than thinking about the consequences for victims. Damasio's card gambling card demonstrates how emotional responses can be essential for adaptive decision making. Exploring an

individual's values and emotional capacities will help coaches identify the potential consequences that will produce stronger emotional responses in offenders, and therefore be more effective in changing behaviour.

Emotional Management is replaced by the construct of *Emotional Competence* in the R&R2. This is an improved conceptualisation, because if emotions are to be well managed, they need to be understood. The R&R2 includes a number of revisions to emphasise the role of emotion in adaptive, prosocial behaviour. However, the program continues to conceptualise cognition and emotion as largely distinct phenomena, and in particular areas, prioritise cognition as a cause of behaviour and therefore behaviour change. On emotion in the R&R2, Ross et al. (2016) write:

"Materials and exercises have been included that are designed to teach participants skills in (1) identifying specific emotions, (2) recognizing thoughts that are engendered by their "emotional schemas". Emphasis is placed on "meta-emotion" - how they view their emotions; how they access their emotions and on how they can modify their emotions" (pp. 11).

*Meta-emotion and meta-cognition:* It is evident that reflection on thoughts and feelings are key components of the program and are, and should be core components of all aspects of treatment. However, the dichotomy between the two as conceptualised in the R&R2 is at odds with current emotion theory, which suggests that meta-cognition and meta-emotion are one in the same. There will be varying degrees of emotion that constitute thoughts, however thoughts will always reflect an individual's core affect. The R&R2's approach to meta-emotion focuses on the thoughts that are 'engendered by' emotions, meaning that these cognitive processes are viewed as distinct and secondary to initial emotional

processes. Thus, there is a suggested linear causal relationship between automatic emotional responses, and cognitive deliberation.

Given the DPMs position on the causal relationship between emotional responses and higher cognition, it can be argued, that the model essentially presents a causal reversal of a cognitivist theory of emotion. However, this is not a complete reversal, because the conscious, deliberative system of the brain is understood as *highly* emotional, while the unconscious, automatic system is described as *relatively* unemotional. Still, the causal sequence of emotional episodes in the model remains clear: emotions engender deliberative cognition. From an enactive perspective, the distinction between unconscious, and conscious processes would not be disputed. This is a phenomenologically accurate distinction. Quite simply, some experience is conscious and some is not. However, the problematic aspect of the model in terms of phenomenology, is that the influence of cognitive deliberation does not simply translate into a reappraisal of behaviour. Rather, as one deliberates, emotional experience will also change (Colombetti, 2014). This is not a sequential process, but a simultaneous process, where thoughts will correspond to changes in emotional experience and bodily processes, which in turn, further influence thoughts. In addition, the difficulty separating cognitive and emotional brain areas, and their deep integration in the brain (Pessoa, 2013; 15), suggests that on a neurobiological level, classifying the conscious, deliberative area of the brain as ‘relatively unemotional’ is problematic. High order cognition is still constitutive of emotion, and the relationship between cognition and emotion is dynamic, non-sequential, and bidirectional.

Considering this apparent flaw in the model, the idea that the conscious system of the brain is relatively unemotional bears little resemblance to the experience of cognitive



deliberation, which corresponds to changes in emotional experience. Therefore, if the DPM does not correspond to phenomenological accounts of emotion, it is limited in its practical application in the context of psychotherapy, one which is largely dependent on the experiences of the client. The inclusion of meta-emotion in R&R2, while adding a new and crucial dimension to the reflection on thoughts (meta-cognition), has limited value as an entirely separate treatment component. In comparison, Enactivism has the advantage of aligning itself with phenomenological accounts of emotion, and thus can more easily, and accurately inform treatment. Enactive emotion theory suggests that treatment modules targeting either cognition *or* emotion are rather misguided, and that the constitutive relationship between the two should be reflected in highly integrated modules for emotion and cognition.

In summary, the R&R2 has moved away from the Cognitivist dismissal of emotional experience, towards an embodied account of emotion. The program highlights the importance of emotion both as a cause of antisocial behaviour, and as a mechanism for behaviour change (emotional competence). However, the R&R2's underlying cognition/emotion theory: the DPM, has, to some extent, made the same mistake as earlier theories of emotion in seeing the two as largely distinct elements of experience and the brain. Thus, while additional emotional treatment components have been introduced, they remain mostly separate from cognitive ones, leaving significant room for improvement in the R&R2.

## Emotional treatment targets in offenders: Dynamic Risk Factors and the Dynamic Risk Research Framework

As a treatment program, R&R aligns well with Andrews and Bonta's (2010) Risk, Need, Responsivity (RNR) Model, which popularised the use of dynamic risk factors as treatment targets in forensic practice. The model distinguishes between the simple correlates of offending, and clinically useful risk factors through the concepts of static and dynamic risk factors. Static risk factors are the relatively stable features of offenders such as criminal history, and gender that are empirically linked to recidivism, but cannot be targeted through treatment. Dynamic risk factors, however are the psychological and behavioural characteristics of offenders that may be subject to change through intervention, such as attitudes and substance use. Further, Andrews and Bonta (2010) use the term 'criminogenic needs' to refer to the dynamic risk factors that 'when changed, are associated with changes in the probability of recidivism' (p. 49). Thus, the idea is that targeting these criminogenic needs through CBT-based interventions will reduce recidivism. The clinical relevance of dynamic risk factors however, has been called into question in recent times because of their apparent lack of explanatory value (Ward, 2016; Ward & Beech, 2015; Mann, Hanson & Thornton, 2010).

Mann et al. (2010) have suggested that in order to bridge the gap between the constructs of dynamic risk factors and psychological processes, these risk factors should be *psychologically meaningful*; that is, that they can be conceptualised as *prima facie* causes for offending. Mann et al. (2010) suggest the conditions of the categorization of psychological meaningful risk factors are: firstly, that there should be plausible reasons for regarding the factor in question as a cause of offending, and secondly, that there is strong

evidence that it predicts recidivism. Examples of these, identified by Mann and colleagues in their study, include sexual preoccupation and conflicts in intimate relationships. In both of these examples, it can be logically inferred that they are causally linked to offending. Sexual preoccupation may lead an offender to seek gratification from an inappropriate or non-consenting person, while relationship conflict may lead an offender to seek the intimacy they likely lack from an inappropriate person (child). Mann et al. (2010) suggest that these psychologically meaningful risk factors should be the targets for treatment, because of their explanatory nature. However, the authors acknowledge that further research is needed to establish the causal connections between these factors and recidivism. While these 'psychologically meaningful' factors may have prima facie explanatory value, a number of broader or more specific, and interacting psychological processes may be occurring for a particular risk factor. As Klepfisz, Daffern and Day (2016) point out in regards to dynamic risk factors for violence:

'What is clear is that the causes of aggression and violence comprise a number of interacting processes, none of which are necessary or sufficient for violence to occur. Accordingly, even if a specific dynamic risk factor exhibits a causal relationship with violence, it is unrealistic to expect change in any single dynamic risk factor to predict recidivism; violence is related to an array of risk factors and we would need to see change in various areas for there to be meaningful reductions in the risk for violence.' (Klepfisz et al., 2016, pp.137).

Thus, using the example of conflict in relationships, it is possible that this factor reflects a broader pattern of self-regulation problems (another identified risk factor), there may be more specific psychological/behavioural factors that trigger relationship conflict such as fear

of rejection or abandonment. Additionally, the conflict may interact with another risk factor such as sexualised coping to cause offending.

Ward and Fortune (2016) have suggested that dynamic risk factors have a 'dual status'. The first is that they are 'useful predictors of reoffending and measures of risk status', and the second is that they are 'potential causes of reoffending, capable of serving an explanatory role as well as a predictive one.' (pp. 4). The dual status is regarded as problematic by Ward and colleagues, who suggest that these factors can at best serve as markers of causality, as they do not provide sufficient causal explanations (Ward, 2016; Ward & Beech, 2015). Ward and Fortune (2016) suggest that rather than being explanatory in nature, dynamic risk factors are composite constructs. They provide two reasons for this categorization. The first is their inherent vagueness: they are usually composed of a number of more specific factors that may be causally implicated in offending, independent of each other. For example: "intimacy deficits incorporate emotional identification with children, lack of concern for others and general social rejection." (Ward & Beech, 2015, pp. 104). Secondly, they may be either causal constructs, contextual variables, or mental states, and thus, should not be grouped together. For example, relationship conflict is a contextual factor that may be indicative of general self-regulation problems: a possible psychological cause of offending.

Based on these criticisms, Ward and Fortune (2016) developed the Dynamic Risk Research Framework (DRRF), which draws on the Research Domain Criteria project (RDoC) and the transdiagnostic approach to psychopathology. The RDoC is a Neuroscience-based framework that conceptualises mental disorders as dysfunctional neural circuits (Morris, Rumsey, & Cuthbert, 2014). In contrast to the current emphasis on diagnostic categories, the RDoC understands neural circuitry as being distributed along a dimension from normal

to pathological functioning. The RDoC is implemented as a matrix with five (rows) domains of psychological processes, based on neurological findings: Negative Valence Systems, Positive Valence Systems, Cognitive systems, Systems for Social Processes, and Arousal/Regulatory Systems, and their constructs. The columns of the matrix correspond to various units of analysis ranging from genes to self-report. The goals of the RDoc According to Morris and Cuthbert (2012) are to:

“validate (in the long-term) tasks for use in clinical trials, identify new targets for treatment development, define meaningful clinical subgroups for the purpose of treatment selection, and provide a pathway by which research findings can be translated into changes in clinical decision making. In the near term, efforts under the RDoC initiative will focus on identifying broad domains of functioning and their constituent dimensional constructs, developing reliable and valid measures across a range of units of analysis for each construct, and supporting studies to determine the full range of variation present in clinical and nonclinical populations with respect to the various domains.” (pp. 30)

The transdiagnostic approach to psychopathology, which emerged around the same time as the RDoC, argues that the diagnosis of core commonalities across mental disorders is a more effective approach than the classification of mental disorders based on descriptive symptoms, such as in the Diagnostic and Statistical Manual of Mental Disorders (DSM, Garland & Howard, 2014). This perspective points to excessive heterogeneity within categories (use of polythetic criteria), overlapping diagnostic criteria/symptoms, and the large amount of comorbidity between disorders (Garland & Howard, 2014). The transdiagnostic approach suggests that different disorders may have shared causal mechanisms, as indicated by the effectiveness of similar interventions at treating a variety

of disorders, for example: metacognitive interventions reduce symptoms in numerous emotional disorders i.e. anxiety and depression (Mansell et al., 2009).

Drawing on both the RDoC and the transdiagnostic approach, The Dynamic Risk Research Framework (DRRF) was developed by Ward and Fortune (2016), as a methodological tool to identify the causal processes underlying dynamic risk factors, and thus improve treatment effectiveness. The framework draws on the RDoC matrix, with a matrix of causal processes on the vertical axis and levels of analysis on the horizontal axis. The proposed causal processes in the DRRF are:

- Negative affective systems (e.g. threat detection, avoidance behaviour)
- Positive affective systems (e.g. approach motivation, cost benefit analysis, locating rewards)
- Cognitive systems (e.g. cognitive control systems, attention processes, declarative memory)
- Intrapersonal social processes (e.g. internal; working models, self-conceptions, self-knowledge)
- Self-regulation systems (e.g. regulation of arousal, coordination of internal systems, construction of action plans),
- Interpersonal social systems (e.g. affiliation and attachment systems, vicarious learning).

Levels of analysis included in DRRF are:

- Biological (e.g. neurotransmitter disturbances, fMRI data on executive functions)
- Behavioural (e.g. how individuals react under stress)
- Phenomenological (e.g. experiences of fear, emotional loneliness),

- Relational (e.g. social network analysis, collateral reports, inter-personal observations).

Ward and Fortune (2016) use the example of the dynamic risk factor 'Emotional congruence with children' to illustrate how the DRRF can be used to further establish the causal processes of a dynamic risk factor:

- negative affective systems: views adults as threats and employs avoidance strategies to manage fear and anxiety;
- Positive affective systems: views children as sources of reward and more likely to provide him with love, sexual pleasure and care. He is likely to seek out opportunities for engagement with children;
- cognitive systems: displays attentional bias towards signs of affection from children or indicators that it might be possible to become involved with them sexually and emotionally (e.g. cues signifying vulnerability, lack of supervision);
- intrapersonal social processes: has a tendency to view himself as vulnerable and unsafe, living in a dangerous world; he lacks understanding of his motives due to expectancy and interpretational biases;
- self-regulation systems: lacks the capacity to soothe himself and effectively control negative physiological arousal; seeks interaction with children to do this and constructs elaborate grooming strategies to accomplish this based on problematic beliefs and goals;
- Interpersonal social systems: has an insecure attachment style and dysfunctional internal working models in which affiliation seeking strategies are entirely directed

towards daily interactions with children, including sexual contact. He may also belong to deviant social networks that approve of adults having sex with children.

This approach to evidence-based treatment, while currently lacking the body of empirical evidence of popular cognitive skills programs like R&R, provides both a direct empirical link between offender characteristics and offending, and a comprehensive causal explanation of this link. Further, the various systems identified by Ward and Fortune are understood as various components of the same characteristic.

In the R&R program however, the application of cognitive deficits to this risk factor would likely miss many levels of causal explanation, and rather, provide only vague and indirect links to both the risk factor itself, and sexual offending. For instance, it can be logically inferred that Impulsivity is causally involved in the link between Emotional Congruence with Children and child molestation. Emotional congruence, in line with the DPM, may be understood as constituting problematic emotional experience that engenders the automatic distorted cognitions that lead to an (impulsive) offense. Therefore, the Consequential Thinking module appears to be an appropriate treatment approach. However, unless the various causal processes specific to this Dynamic Risk Factor are explored, cognitive skills addressing general cognitive deficits may neglect crucial motivational processes specific to a certain individual displaying a certain risk factor. Thus, in the example provided by Ward and Fortune, there are no levels of explanation suggesting trait impulsivity. Rather, the self-regulation systems of the offender comprise a lack of adaptive self-regulation, leading to the construction of elaborate grooming strategies. This suggests an individual prone, not to impulsivity, but to careful and calculated planning. Thus, Consequential Thinking is unlikely



to be an effective treatment approach for this individual, demonstrating the limitations of a general cognitive skills approach to treatment.

The cognitive deficits targeted in R&R lead to reductions in recidivism, as demonstrated by the large body of evidence supporting the program's efficacy (Tong & Farrington, 2006; Antonowicz, 2005), and therefore, are essentially dynamic risk factors themselves (although empirically linked to offenders rather than offending directly). Further, many of the cognitive skills in the program act as subcomponents of Antisocial Personality one of the 'Big Four' (most empirically supported) dynamic risk factors identified by Andrews and Bonta (2010). However, the cognitive deficits in R&R are not necessarily indicative of the causal processes involved in certain types of offending (sexual vs violent, child vs rape, and so on), or a particular offender. The DRRF approach provides both a strong empirical basis through the use of dynamic risk factors, which are identified in particular offenders and empirically linked to offending, and a causal explanation of this link. This would allow treatment targets to be refined, such that the various levels of casual processes involved in offending for a particular individual could be targeted directly.

## Conclusion

In summary, the cognitive skills approach of R&R, while demonstrating good treatment efficacy, currently only provides vague and indirect links to offending through the identification and targeting of general cognitive deficits. The approach outlined by Ward and Fortune (2016) emphasises the identification of causal links to offending, while maintaining a commitment to empiricism through the incorporation of dynamic risk factors. However this approach, while promising, currently lacks the body of evidence supporting the R&R's

targeting of cognitive deficits through cognitive skills training, and further research is needed to demonstrate its effectiveness as an alternative treatment approach.

This chapter has discussed both the PE-EFT approach in general clinical practice, and one of the most widely used offender rehabilitation programs: the R&R program. PE-EFT is an experience-based form of therapy that recognises the dynamic, deeply integrated cognition-emotion relationship, and aligns reasonably well with enactive emotion theory. Although, this approach is yet to be implemented in offender treatment programs. In addition, while the original R&R program followed the cognitivist era mantra of 'cognition rules behaviour', which largely neglected the emotional aspects of experience, R&R2 has recognised the importance of bodily feelings in influencing cognition and behaviour. However, while these treatment approaches, particularly PE-EFT have demonstrated the effectiveness of emotion-based treatment approaches, these approaches could benefit from aligning more with truly embodied emotion theory: enactivism, in order to incorporate more body-based techniques and refine existing treatment components. In addition, while addressing the emotional deficits and exploring the values and experiences of offenders appears essential for comprehensive treatment, identifying causal links between emotional treatment targets and offending is also crucial, particularly for the purpose of risk-management (Andrews & Bonta, 2010). An approach such as the DRRF (Ward and Fortune, 2016) would allow further refinement of treatment targets, such that various levels of causality could be targeted directly. The following chapter will draw on both Emotion-Focussed Therapy and the criticisms of R&R explored in this chapter, as well as enactive emotion theory, to outline a revised framework for emotion in forensic treatment programs, with specific reference to R&R.

## Chapter 4: Enactive Emotion in Cognitive Treatment Programs

The enactivist account of emotion has provided an enriched understanding of emotions and their importance in understanding human behaviour. Cognition and emotion are no longer understood as distinct components of the mind. Rather, both are elements of the embodied mind, which are dynamically and constitutively related. This understanding of emotion points to the importance of using emotional techniques in offender treatment, in a way that is highly integrative and complementary to cognitive techniques. Emotion-Focussed Therapy (EFT) presents an example of a successful integration of cognition and emotion in treatment. However, the approach taken by EFT, or similar approaches have not been employed in forensic treatment programs such as R&R. Despite revisions to the original program, with a revised understanding of emotion as an essential component of treatment, the theoretical basis for these revisions: the DPM, still views emotion and cognition as largely distinct through the dichotomy of conscious (deliberative and relatively unemotional) and unconscious (automatic and highly emotional) processes. This has resulted in a continuation of defining deficits in cognitive terms and a focus on cognitive techniques, as well as the separation of cognitive and emotional treatment components (meta-cognition vs meta-emotion). Taking into account the enactivist theory of the mind and emotion, the potential benefits of emotion-focussed therapy in forensic practice, and the criticisms of the R&R cognitive skills program, this chapter will present potential applications to offender treatment. In addition, the significance of offender values, as an additional emotional element in treatment will be explored through analysing the Good Lives Model of offender rehabilitation.

## Implications for the Reasoning and Rehabilitation Program

The previous chapter discussed the problematic nature of the R&Rs conceptualisation of cognitive deficits. Understanding the deficits of offenders in almost exclusively cognitive terms limits both the understanding of the nature of these deficits, and the scope of treatment components. The cognitive skills employed in the R&R are largely one-dimensional in their approach, with a focus on verbally-mediated thought processes. While these cognitive skills address corresponding and constitutive emotions indirectly, the approach may neglect important motivational processes that can be understood and addressed in a much more holistic manner by including techniques that also focus on bodily feelings. Rather than understanding deficits as either emotional or cognitive, the dynamic, bidirectional, and constitutive relationship between the two suggests they should simply be understood as deficits containing a combination of cognitive and emotional elements. Some deficits may be more 'heady' or intellectual, and thus focussing more so on cognition may be more appropriate as an intervention. However, even these deficits involving highly deliberative processes will constitute emotion (Colombetti and Thompson 2008; Colombetti 2014), and neglecting the emotional elements of these deficits will very likely hinder treatment in some way.

## Cognitive-Emotional Deficits

Considering this perspective of R&R's cognitive skills, the skills identified by Ross and colleagues (1985; 2016) will be reconceptualised and displayed below as cognitive-emotional deficits:

- ***Impulsivity***: responding behaviourally to immediate feelings activated through the presence of perceived external threats or benefits, and corresponding cognitions involving the maladaptive avoidance of threats or attainment of benefits. This occurs without emotional regulation, reasoning, or reappraisal, and includes a lack of reflection on behaviour and its consequences. This reflection would involve both the intellectual understanding of the consequences of the behaviour, and an emotional response to these consequences. An example would be an immediate feeling of intense anger activated by the external presence of a perceived insult or slight, corresponding to cognitions of violent retaliation. The individual is unwilling/unable to regulate their anger, does not reason about the potential costs and benefits of engaging in violence, and thus they do not reappraise their potential behaviour. This means the individual does not fully comprehend the consequences of engaging in violence, and therefore does not have an appropriate emotional response to these consequences (guilt, empathy).
- ***Externality***: the attribution of a person's own behaviour to external factors (other people, circumstance), and therefore, a sense of powerlessness or lack of personal responsibility/autonomy. The individual will likely lack emotional competence and understanding of their own motivations. In addition, the sense of powerlessness will likely correspond to apathy, or the absence of emotional responses to the impact of

behaviour. An example would be an individual who commits intimate partner violence blaming their partner for their own abusive behaviour: “she made me do it”. The individual does not understand the emotions that motivate his violence, perhaps reflecting a deep sense of insecurity and paranoid beliefs. The individual’s victim blaming, and denial of responsibility allows him to carry out his actions with reduced or absent guilt or remorse.

- **Concrete Thinking:** a lack of abstract reasoning will lead to difficulties understanding the concepts of justice and law, and in understanding other people’s thoughts and feelings (moral reasoning). Social rules and laws may be understood intellectually but not emotionally, and thus reasoning on a mostly intellectual level may be unable to deter individuals from offending. An example would be a child sex offender not understanding why sex with children is illegal. Because of a lack of reasoning ability, the individual does not understand that children are unable to consent to sexual activity, and as a result cannot use moral reasoning to understand the trauma child molestation inflicts.
- **Conceptual Rigidity:** rigid, narrow, and intolerant thinking corresponding to negative emotions, and the avoidance of these emotions will lead to a persistence in antisocial and maladaptive behaviour. These emotions will likely reflect deeply held maladaptive beliefs about themselves and others. For example, a rapist who holds bigoted, hateful beliefs towards women, is unwilling to reconsider his beliefs due to the strong negative emotions that underlie them. He has a strong sense of entitlement towards women, and his corresponding sense of rejection give him strong feelings of contempt which underlie his rigid thinking.

- ***Interpersonal Cognitive Problem-Solving Skills***: a lack of the cognitive-emotional skills required to resolve interpersonal problems. One may not accurately identify the consequences of their behaviour on others in both an intellectual and emotional sense, and will therefore fail to consider prosocial alternatives. Individuals may have certain core affective orientations that cause inattention and lack of awareness of the negative impact of behaviour on others. In addition, this core affect may cause them to misinterpret social cues and frame social situations in a negative or maladaptive way. For instance, an individual may be unable to solve interpersonal problems at work, leaving him unable to maintain employment, putting him at greater risk of reoffending. He neglects his work responsibilities, and does not recognise how this affects his workmates. When confronted, he feels he is being treated unfairly so responds with hostility and aggression.
- ***Egocentricity***: a self-centred disposition that impedes the ability to empathise with the thoughts and feelings of others, causing interpersonal problems and alienation. This disposition may reflect narcissistic tendencies: an inflated self-esteem, resulting in dissociation from other people's feelings. Or, it may reflect psychopathic tendencies: reduced affective capacities that result in a lack of emotional response to others.
- ***Values***: may be based on personal significance and gain only (egocentric), rather than how things affect others. Values are an inherently emotional capacity in that they reflect what is most important to an individual. For example, an individual strongly values power and control, and responds to those who he feels undermine him with aggression, and often violence. The importance of individual values will be

examined from a humanistic approach in a later section on the Good Lives Model of offender rehabilitation.

- **Critical Reasoning:** irrational thinking and a lack of self-reflection will make it difficult to reappraise actions, and lead to reckless/harmful behaviour. Adaptive bodily feelings such as anxiety in response to risk may be reduced, leading to an impaired capacity for reasoning. Lack of self-reflection will constitute poor understanding of one's own feelings, how these feelings correspond to maladaptive or irrational thinking, how they motivate behaviour, and the emotional impact of this behaviour on others. For example, an individual sees an opportunity to reap vengeance on someone he feels has wronged him, and considers violently assaulting the person when he spots them. The individual feels little anxiety as he considers committing the offense, and therefore, does not reason about the likely consequences for himself. In addition, he does not understand why he is so enraged, how this has distorted his thinking, and he dissociates from the feelings of his potential victim.

While these reconceptualised cognitive-emotional deficits may appear speculative, it is important to note that they are in fact exactly the same deficits identified in offenders by Ross and colleagues (1985; 2016), which when targeted in treatment, have been found to reduce reoffending in meta-analytic studies (Tong & Farrington, 2006; Antonowicz, 2005). The deficits have simply been reconceptualised based on further corresponding emotional elements, which have previously been unspecified. Additional empirical evidence identifying these additional elements in offenders is not required in order to justify their inclusion in the conceptualisation of cognitive deficits. All of the additional emotional aspects mentioned are constitutive of the cognitive aspects originally identified by Ross and Fabiano



(1985), and therefore, have always been the deficits targeted in the R&R program. However, because of their original conception in cognitive terms, the deficits have been targeted accordingly through Cognitive Skills, which largely neglect their emotional elements. As previously mentioned, this is essentially a one-dimensional approach which, for the most part, addresses the emotional aspects of cognitive deficits in an indirect manner. For instance, Consequential Thinking as a cognition-based approach will have an indirect influence on emotion regulation. Training in the reappraisal of one's potential actions necessarily requires reference to one's emotional experience. Of course, it is difficult to argue against the effectiveness of this approach considering the empirical efficacy of the R&R program (Antonowicz, 2005). However, the aim of this critique of R&R is not to discredit the program, but rather, to identify how the program approaches emotion in treatment, and how revisions to this approach based on embodied/enactive emotion theory can potentially further improve treatment.

### **Cognitive-Emotional Skills: Potential Revisions to R&R Treatment Modules**

The following section will present potential revisions to the Cognitive Skills in which program participants are trained, based on the revised conceptualisations of cognitive (cognitive-emotional) deficits and a number of emotion-based treatment approaches including PE-EFT (Elliot & Greenberg, 2007). In contrast to the nuanced understanding of cognitive-emotional deficits, these revisions are indeed speculative, and would require further empirical evidence in order to justify their inclusion in R&R(2). Nonetheless, they are all based on cognitive-emotional treatment approaches that have shown good efficacy in non-forensic populations.

## Consequential Thinking

Based on the research of Ross and Hilborn (2008), which indicates that offenders think in an automatic, unskilled and antisocial manner, and fail to consider the probable negative consequences of their actions, R&R2 trains offenders to move from unskilled, Automatic Thinking to Skilled Thinking. As mentioned previously, this 'Skilled Thinking' is an inherently emotional capacity, requiring emotional intelligence. However, R&R, based on the Dual Process Model, suggests that the reappraisal of behaviour is a relatively emotion-free capacity: a highly cognitive, intellectual process where one moves away from an automatic, emotionally-engendered, and unsophisticated mode of thinking. This highlights a significant weakness in the DPM, which attempts to classify behaviour in a dichotomous manner based on the identification of two distinct brain systems. This theory aligns poorly with phenomenological accounts of emotion, in contrast to the dynamic and constitutive understanding of emotion and cognition proposed by Colombetti and Thompson (2008; 2014). Once an appraisal process begins, the notion that the role of emotion becomes essentially redundant appears neither phenomenologically or empirically accurate. This is because reappraisal requires reference to one's emotional experience, a capacity that is equally cognitive and emotional. Further, in high-risk situations, Damasio's (1994; 2003) work with VMF patients, demonstrates that emotional responses are *necessary* in order to engender the reappraisal process. This relates to the idea proposed by both enactivism, and earlier embodied accounts of emotion that emotions are inherently evaluative: that the body is naturally attuned to the environment, and is necessarily involved in the appraisal and reappraisal of behaviour (Damasio, 2003; Prinz, 2005; Colombetti & Thompson, 2008).

In a phenomenological sense, when the utility of potential actions are appraised, it appears accurate that both emotional responses and intellectual judgements are constitutive elements of the same process. For instance, if likely consequences for victims are understood intellectually, but not empathically, this is very unlikely to actually motivate alternative action. Or, the judgement that is perhaps ubiquitous in the minds of offenders: "Am I likely to get caught?", even if judged more so in the affirmative, may be insufficient to deter an individual's initial urges if an emotional response prompting risk-aversion is weak. Further, there also exists the possibility that affect is required to motivate reappraisal in the first place. Will these thoughts even enter the awareness of offenders if there is little-to-no concern with the welfare of others, or anxiety over the possibility of a criminal sentence and public shame? Thus the Skilled Thinking instilled in R&R participants may not be applied in real scenarios if there is little motivation to do so.

Based on these apparent limitations of this treatment module, how then can Skilled Thinking be refined in order to incorporate the cognitive-emotional nature of reappraisal?

One possibility is to train offenders more so in understanding the emotions that motivate their offending in the first place. If an offender can understand their motivations for committing an offense, this then allows practitioners to present the maladaptive nature of offending in terms of fulfilling needs or desires, and present prosocial alternatives. In essence, this approach highlights the importance of capturing the motivation of offenders. In order to motivate reappraisal, the benefits of doing so must be presented in a manner that is appealing for program participants. If individuals can be presented with the benefits of reappraising their antisocial actions, it is much more likely in a real life scenario, that the reappraisal process will be consciously initiated, and successfully applied. This approach is of

course, a very broad one, and could indeed be classified as one of the broad objectives of the R&R program, perhaps most aligned with the R&R2's emphasis on 'meta-emotion' (Ross et al., 2016). However, the idea being proposed is that capturing motivation may be a particularly effective approach to addressing the cognitive-emotional deficit *Impulsivity*, which is the primary target of the Skilled Thinking module.

In terms of practical application, capturing the motivations of offenders through an emotion-focussed approach, similar to Elliott & Greenberg's (1997; 2007) PE-EFT approach may be an effective way to target impulsive behaviour. Emotions may be activated and explored in program sessions in order to understand (Both client and therapist), the emotional experience underlying antisocial behaviour, and the desires which constitute these emotions. Thus, an individual may be asked to visualise a previous offense in order to activate corresponding emotions. Through the guidance of the therapist, these emotions will be explored and described in order to understand the desires underlying them. Once an individual's motivations/desires have been identified, the problematic nature of the means used to fulfil desires can be presented to them, and alternative actions proposed. If the offender is instilled with the idea that their desires are more likely to be fulfilled through prosocial means, if antisocial urges are reappraised, it follows that they will be more likely to reappraise their antisocial impulses.

### Meta-cognition

Meta-cognition is understood as the critical assessment of an individual's own thinking (Ross & Fabiano, 2016). As outlined in the previous chapter, in the words of Ross & Fabiano (2016, pp. 8), offenders are taught to "realize that how they think determines what they

think, how they feel and how they behave”, and to regulate themselves through cognitive strategies. Thus, this is a very broad approach, large in scope, which targets many ‘cognitive’ deficits. From an enactive perspective, this approach, whether explicitly understood or not, is largely an affective one, where the constitutive nature of cognition and emotion is apparent. Where R&R’s conceptualisation differs from an enactive one however, is that rather than thinking “determining” how one feels, thinking *is* what one feels: both constitute each other. This is an important distinction, because in addition to the meta-cognition module, R&R2 also includes a separate *meta-emotion* treatment component. Meta-emotion focuses on the thoughts that are ‘engendered’ by emotions. Again, this suggests a clear dichotomy between the cognitive and emotional elements of experience. In what is essentially a reversal of the cognitivist position, R&R2 (based on the DPM) suggests a linear causal relationship between emotion and cognition, where deep brain emotional activity engenders front-brain intellectual deliberation. As the work of Maiese (2011; 14) suggests however, the starting point for emotional experience may be better understood as an orientation towards certain features of the environment, based on a core affect. While this does suggest that affect is indeed the starting point for all other experience, the affective framing (orientation, Maiese, 2011) of a person may be understood as both an affective (evaluative) and cognitive (attention allocation, perception) capacity. It is from this starting point that dynamic, bidirectional, and constitutive cognitive-emotional patterns arise (Colombetti, 2014), without a distinct neurological separation between the two (Pessoa, 2013; 15). From this perspective, the distinction between Meta-cognition and Meta-emotion makes little sense. The argument that follows therefore, is that these are one in the same, and that meta-cognition, what is essentially ‘meta-experience’, does not require an additional, complementary meta-emotion treatment component. Practitioners

should instil meta-cognition as an awareness that what one thinks constitutes what one feels, and that what one feels constitutes what one thinks, and that both have a continuous, dynamic, bidirectional influence on each other. This understanding, which appears much more phenomenologically accurate (Colombetti, 2014) than the meta-cognition/emotion approaches in the R&R, should therefore provide a better foundation for self-regulation techniques.

### Critical Reasoning

In this cognitive skill training, offenders are trained to think “logically” and “rationally” without antisocial or egocentric distortion, or denial. This cognitive skill presents one of the most notable examples in the R&R of the neglect of the emotional elements of experience. In line with the DPM, Critical Reasoning is understood as a relatively emotion free, almost purely intellectual process. This again presents a phenomenologically (Colombetti, 2014; Colombetti & Thompson 2008; Maiese, 2014) and neurologically (Pessoa, 2013; 15; Damasio 1997; 2007) inaccurate account of cognitive deliberation. In line with the earlier version of R&R, emotion in this regard is understood as problematic; something that needs to be overcome in order to avoid distorted thinking. It does appear accurate from a phenomenological perspective that critical reasoning is a ‘cooler’ process in terms of emotional experience. However, this suggests not that emotions are relatively unimportant in critical reasoning, but that the intensity of emotions is important. Logical, rational thinking is made more difficult when emotional experience is intense, with corresponding cognitions much more likely to be distorted. However, the role of emotion remains essential, particularly in the case of offenders. This is because critical reasoning in the

context of offending relates to *moral reasoning*, that is, the ability to reason over the consequences of one's actions in terms of the wellbeing of others. As Maiese (2014) suggests, in the case of psychopathy, these individuals are generally able to understand the unlawfulness and consequences of their actions on an intellectual level, but because of affective deficits, are usually undeterred by these potential consequences. Thus, based on Maiese's work, the only individuals that would engage in the relatively emotion-free reasoning proposed by R&R, are in fact, some of the most antisocial and dangerous individuals. This highlights the importance of (moral) emotions in the reasoning process, and suggests that for individuals with less severe affective deficits, the exploration and enhancement of the moral understanding of the consequences of their actions is crucial. This is where a PE-EFT approach may be effective. Moral emotions can be activated and explored in therapy, so that coaches can identify particular deficits, and potential strengths that can be enhanced. Clinical psychopaths present a challenge to this approach however, and are very unlikely to benefit. This group of individuals would require a distinct approach to improving critical reasoning, such that this could induce changes in behaviour. The targeting of reasoning in terms of personal consequences would appear significantly more promising. One possibility is that because psychopaths' affective framing deficits cause them to miss important contextual information relevant to personal risk (Maiese, 2014; Baskin-Sommers, Curtin, & Newman, 2015), this deficit should be the primary target of treatment. One potential and promising approach has been demonstrated by Baskin-Sommers et al.'s (2015) study, in which cognitive remediation (specific cognitive mechanism) training aimed at improving psychopaths' attention to contextual information resulted in improvements in laboratory tasks.

## Social Skills and Helper Therapy

Offenders are positively reinforced for various social skills in order to equip them with the skills necessary to have positive interactions with prosocial peers. This is a particularly important cognitive-emotional skill considering the strong association between the presence of antisocial peers and recidivism (Andrews & Bonta, 2010). In addition, suitable antisocial offenders may be placed in roles in which they behave as prosocial individuals. Here, offenders act as therapists or teachers for others, and assist those who are less competent or capable. Both Social Skills and Helper Therapy training are based on a philosophy that 'doing is better than observing' in the process of learning prosocial behaviour. Alluded to in the previous chapter, the modelling and role-playing exercises involved in these treatment modules are well aligned with enactive emotion theory, where the brain and the body modulate each other as elements of the embodied mind. The exercises draw on evidence suggesting that prosocial neural connections are formed both by observing and engaging in prosocial behaviour (Ross et al., 2016). In addition, meta-analyses of rehabilitation programs indicate modelling and role playing as a pivotal factor in the overall success of a particular program, and reducing recidivism (Antonowicz and Ross, 1994). As Colombetti (2014) suggests, the body modulates and constrains neural patterns. Therefore, actually engaging in this behaviour strengthens the neural connections corresponding to it, a principal that is demonstrated by the modules' strong empirical support (Ross et al., 2016). The inclusion of positive reinforcement provides an additional cognitive-emotional element, where positively-valenced emotions also strengthen neural connections, increasing the likelihood that prosocial interaction will be carried out in future. Thus, these module's strong theoretical and empirical support suggests that modelling and



roleplaying exercises are a significant strength of the program, and may also provide an effective form of treatment for a number of other deficits.

### Interpersonal Cognitive Problem-Solving Skills and Social Perspective Taking

Interpersonal Cognitive Problem-Solving Skills are based on work with heroin-abusing offenders (Platt, Perry, & Metzger, 1980). Individuals are trained in resolving interpersonal problems through understanding others' values, behaviour and feelings, and the consequences of their behaviour for others. As previously mentioned, although this module includes a focus on understanding other's feelings, the various social problem-solving skills employed are conceptualised mainly in cognitive terms. Perspective Taking (Platt & Hermalin, 1989) was identified as an example of a skill that despite being highly emotional, is understood primarily as a cognitive capacity. This is again contradicted by the discrepancy between intellectual understanding, and moral understanding in psychopathic individuals (Maiese, 2014). This dissociation does not point to a clear dichotomy between emotion and cognition, thus providing evidence against the enactive perspective. Rather, the dynamic cognitive-emotional patterns displayed in neurologically healthy individuals are (presumably) still present in psychopaths, but with severely reduced bodily feelings, making empathic emotions notably absent. The crucial role of emotion in interpersonal problem solving, as demonstrated by enactivist theory, and the work of Maiese, suggests that the cognition-based approach taken by the R&R, where the understanding of the thoughts and feelings of others is trained on an intellectual level, will likely be somewhat limited in changing patterns of behaviour in challenging social situations. An approach encompassing the highly emotional nature of interpersonal interaction would appear more appropriate.

Social Perspective Taking, another program component, indeed provides a more phenomenologically accurate approach to prosocial interaction. This component aims to improve empathic capacities; the ability to consider other people's views, feelings, and thoughts. As Colombetti (2014) suggests, in accordance with the enactive perspective, emotional experience extends beyond the brain and body to the environment, and in the case of social interaction, is modulated by the outward emotional expressions of others (facial expressions, posture, tone of voice). Maiese (2011) likens this process to a 'dance', with a continuous bidirectional modulation between individuals based on outward expression. Thus, it is clearly evident that the perspectives of others cannot simply be understood in an intellectual sense. This process involves empathic engagement with others, based on the recognition of outwardly displayed emotions. Referring back to the first chapter, Marshall et al. (1995) suggest that empathy is a process of four unfolding stages: the ability to recognize another person's emotional state, the ability to take the other person's perspective, an affective response to the other person's emotional state, and an attempt to ameliorate the other person's distress. In regards to this model and the enactivist perspective, the study of Gery et al. (2009) indicates that sex offenders have a reduced capacity to recognise emotions displayed by facial expressions, as well as reduced affective empathy, suggesting that an inability to process facial cues may affect empathic responses. Further, this facial recognition deficit has also been displayed in youth offenders, and is associated with reduced empathy and delinquency (Carr & Lutjemeier, 2005). This provides a possible general approach to empathy enhancement, through facial recognition training, an approach that would align well with the enactive perspective. However, as Marshall et al. (2009) there is little empirical evidence available on the effectiveness of similar approaches.

## Creative Thinking

This module aims to address Conceptual Rigidity through teaching offenders alternative thinking: how to consider prosocial rather than antisocial ways of responding to problems. However, like the Consequential Thinking component of R&R, capturing the motivations of offenders appears essential in order to maximise the effectiveness of this approach. Having the ability to think of prosocial alternatives in challenging situations is an important skill in its own right, and is indeed a highly intellectual capacity, involving emotional experience in a mostly indirect sense. However, having the motivation to engage in alternative actions is essential in order for an improved capacity to generate alternatives to translate into behaviour change. Thus, the exploration of an offender's values and motivations through a PE-EFT or experience-based approach, and alternative ways of fulfilling personal needs and desires may also be an effective approach to motivating the initial implementation, and behavioural execution of Creative Thinking. With specific reference to Conceptual Rigidity, the intended target of the Creative Thinking module, the negative emotions underlying problematic and rigid beliefs could also be explored through their activation and exploration. Unless these emotions are explored, and better understood by offenders in terms of their problematic nature, it will likely be significantly more difficult for coaches to motivate offenders to consider alternatives to rigid patterns of thinking and behaviour.

## Emotional Competence

Emotional Competence replaces Emotional Management in the R&R2, based on the idea that the identification and understanding of one's emotions is essential in order for these emotions to be effectively managed. Participants are taught to identify specific emotions, and to recognize thoughts that are 'engendered by' their emotional schemas (Ross et al., 2016). The approach includes a focus on meta-emotion: how offenders "view their emotions; how they access their emotions and...how they can modify their emotions" (Ross et al., 2016, pp. 11). As mentioned in the section on meta-cognition, because of the constitutive nature of emotion and cognition, this focus on emotion is one that is implemented indirectly through meta-cognition, which aims to teach offenders that how one thinks determines how one feels. The main point of difference between the two lies not in actual experience, but rather, in the DPM's distinction between automatic, unconscious, highly-emotional experience, and deliberative, conscious, colder experience. Feelings are given primacy as automatic phenomena, whereas cognitive deliberation is generated consciously. Essentially meta-cognition and meta-emotion present two competing, yet complementary accounts of the cognition-emotion relationship, the former based on an earlier, cognition-based understanding of emotion (thinking determines feeling), and the latter based on the DPM's account of emotions as having primacy over cognition (feeling determines thinking). While neither account is accurate in its own right from an enactive perspective, both claims are indeed accurate with reference to each other: thinking constitutes and modulates feeling and vice versa. Thus, as discussed in the section on meta-cognition, it can be argued that having two distinct treatment approaches is unnecessary, and that meta-emotion and meta-cognition should be combined in what may be understood as 'meta-experience'. The approach taken in emotional competence however, is fairly well

aligned with a PE-EFT approach, in that offenders are trained to identify and understand their emotions, although as may be expected in a forensic context, this is perhaps a more pragmatic, targeted approach compared with PE-EFT, which provides a more humanistic, experiential form of therapy (Elliott & Greenberg, 2007). The advantage of the PE-EFT approach is the exploration of an individual's core underlying beliefs through the activation of emotional experience, and the implementation of a 'positive-change voice' that challenges these beliefs. The beliefs themselves would appear particularly important, given that they dispose individuals to certain patterns of emotional experience. Thus, it would appear important, not simply to identify emotions when they arise and then attempt to modify them, but to understand the core beliefs underlying them.

### Values Enhancement and the Good Lives Model

The R&R program uses Socratic discussion techniques and games to teach values that are prosocial and less egocentric: values enhancement. This approach however, does not align overly well with the conceptualisation of values in strength-based offender rehabilitation programs (Ward, Yates, & Willis 2012; Ward, Collie, & Bourke, 2009). Ward et al. (2009) define values as:

"a particularly important set of resources as they represent foundational or core standards used to construct ways of living and hence identities. They bestow a sense of meaning, significance, and purpose on human lives and are at the heart of the rehabilitation process" (pp. 297).

Thus, changing what an individual values and their sense of personal meaning and fulfilment through discussion and games, appears to be a highly difficult, if not a fairly futile task, considering their core, foundational nature. Additionally, it may not be the values themselves specifically, but the way they are expressed in terms of goal orientation and need fulfilment that is problematic. It is largely this understanding of offender values that informs the *Good Lives Model* (GLM) of offender rehabilitation, developed by Ward and colleagues (Ward, 2002; Ward & Maruna, 2007; Ward et al., 2012).

The GLM is a strength-based rehabilitation model, which aims to “equip clients with the internal and external resources to live a good or better life” (Ward et al., 2012, pp. 95): a life that is both personally meaningful and socially acceptable. As it relates to the RNR’s emphasis on criminogenic needs (Empirically supported dynamic risk factors, Andrews & Bonta, 2010), these needs are understood as internal or external barriers towards a good life, thus they are conceptualised within a strength-based framework, as barriers to a good life (Ward et al., 2012), rather than simply risk factors for offending. Thus, the GLM aims to maintain a commitment to the evidence-based forensic practice and risk management advocated by RNR (Andrews & Bonta, 2010), but to balance this commitment with a humanistic approach which explores how personal meaning and values can motivate change towards living a good life.

The GLM, drawing on psychological, social, biological, and anthropological research, proposes that all human beings are goal directed and are predisposed to seek a number of *primary human goods* (Ward et al., 2012). According the Ward and colleagues, primary human goods are “states of mind, personal characteristics, or experiences that are intrinsically beneficial and sought for their own sake...they represent an individual’s core

values and life priorities.” (Ward et al., 2012, pp. 95). Ward and colleagues propose 11 classes of primary goods: (a) life (including healthy living and functioning), (b) knowledge, (c) excellence in play, (d) excellence in work (including mastery experiences), (e) excellence in agency (i.e., autonomy and self-directedness), (f) inner peace (i.e., freedom from emotional turmoil and stress), (g) friendship (including intimate, romantic, and family relationships), (h) community, (i) spirituality (in the broad sense of finding meaning and purpose in life), (j) happiness, and (k) creativity (Ward et al. 2012). While it is assumed that all will be sought to some degree, where values are related to these primary goods is in the prioritisation of specific primary goods, thus reflecting an individual’s sense of identity.

Secondary goods provide concrete means of securing primary goods through approach goals, thus, they involve the actions and practical means used to obtain primary goods. Therefore, offending (criminogenic needs) may be understood as the implementation of maladaptive secondary goods, such that the primary goods sought are achieved, or aim to be achieved in some sense, but through antisocial means, ultimately hindering the pursuit of various primary goods. Thus, while all individuals aim to live a “good life” in the sense of pursuing various primary goods based on values, recidivist offenders generally have flawed good life plans (Ward & Maruna, 2007), in that their attempted acquisition of primary goods involves secondary goods that equate to Criminogenic Needs. This is what Ward and colleagues refer to as the *Direct Route* to offending (Ward et al., 2012). The *Indirect Route* occurs when an individual does not have the intention to offend but is impaired in the pursuit of primary goods, such as the omission of various goods from a good life plan (lack of personal values, identity), conflicting or incoherent secondary goods, and a lack of internal and external resources to fulfil primary goods (Ward et al., 2012), predisposing him to commit an offense. Thus, values are inherently linked to offending, in both a direct sense,

through the implementation antisocial secondary goods to achieve primary ones, and indirectly, through flaws in an individual's good life plan.

In addition to this focus on values in the GLM, Ward is also a proponent of the enactive perspective of emotion, and its potential applications in a forensic context. Applying Maiese's (2011) theories of primordial affect and affective framing to the conceptualisation of values and goals, Ward (2017) notes that dysfunctional values and goals are causally involved in an individual's affective orientation, and the potential framing of situations in a problematic manner. This understanding of the causal, constitutive link between core affect and values/goals is critical in offender rehabilitation, as the exploration of values involves capturing an individual's motivation, a crucial factor in determining successful engagement in therapy (Ward, 2017). Ward (2017) also notes with reference to Maiese's theory, that affective framing is the foundation for all other emotional experience, and will be involved in every treatment module, whether directly referenced or not. Thus, values, through their constitutive relationship with core affect, are foundational phenomena that underlie all forms of experience. Therefore, the GLM's emphasis on individual values, the identification of problematic secondary goods, and the instilment of prosocial alternatives to realising goals and values as part of a broader good life plan, appears to align particularly well with enactive emotion theory. Capturing values and motivational processes is also an approach that would benefit essentially all other treatment modules. For instance, if an individual is more motivated and engaged in therapy, they will be more likely to follow the 'doing is better than observing' principle of R&R and engage in modelling and roleplaying exercises. Further, in order for individuals to implement skills such as Consequential, and Creative thinking, they need to be motivated to engage in reappraisal and alternative thinking. Simply focussing on intellectual capacities will not be sufficient. Thus the approach to values



taken by the GLM appears to have far-reaching, and positive implications for offender rehabilitation programs.

## Conclusion

In conclusion, while R&R2 (Ross et al., 2016) has made promising moves away from the prioritisation of cognition in the original version of R&R (Ross & Rabiano, 1985), towards an approach that is more integrated with cognition, the program has arguably not gone far enough in this regard. The R&R2's underlying theory of emotion/cognition: the DPM, while not separating emotion and cognition entirely neurologically, continues to present a dichotomy between the two through automatic vs deliberative thinking, an approach which bears little resemblance to phenomenological accounts of cognition and emotion (Colombetti, 2014). This has resulted in treatment modules continuing to provide 'either-or' approaches, where one, usually cognition, is addressed in a one-dimensional manner at the expense of the other, such that emotion is targeted only indirectly without specific reference to bodily feelings. A notable strength of the program however, are the prosocial modelling and role-playing exercises, which align well with enactive emotion theory through incorporating the body: an element of the embodied mind which modulates experience, into treatment. However, most notably, the R&R program would benefit from incorporating the emotional elements of what are cognitive-emotional skills, into treatment modules, and placing a greater emphasis on personal values and goals in order to capture motivation, and improve engagement in the program.

## Chapter 4: Conclusions

The enactive philosophy of the mind has produced significant advancements in affective science, providing a neurologically (Pessoa 2013; 15; Lewis, 2005; Bechara et al., 1994), and phenomenologically (Colombetti, 2014; Maiese, 2011) accurate understanding of emotion. Following the cognitivist era of the late 20<sup>th</sup> century, neo-Jamesian theories have demonstrated the functional role of the body in emotions (Damasio 1994; Prinz, 2004), and dynamic systems theories have demonstrated the dynamic, self-organising nature of emotional experience (Lewis, 2005). Drawing on both of these schools of emotion theory, philosophy, biology, and phenomenology, the enactive understanding of the mind suggests that people enact, or bring forth meaning through reciprocal interactions with the environment. Thus, this is a process of sense-making (Colombetti & Thompson 2008). In the case of human beings, essential to this sense-making process is a core affectivity that orientates one towards personally-significant features of the environment (Maiese, 2011). In addition to this core, primordial affectivity, in the case of emotional episodes, cognitive and emotional elements of the mind are understood as constitutive of each other, and interact in a dynamic, bidirectional manner, modulated by previously formed neural connections, the body, and the surrounding environment to produce an emotional pattern. The notion of the constitutive and dynamic relationship between cognition and emotion, points to the need for these two elements of the embodied mind to be highly integrated in general and forensic treatment.

Process Experiential-Emotion Focussed Therapy PE-EFT (Elliott & Greenberg, 2007), provides a form of treatment which recognises the highly dynamic relationship between cognition

and emotion. PE-EFT is an experiential form of therapy that recognises the dynamic, deeply integrated cognition-emotion relationship, and aligns reasonably well with enactive emotion theory, although it would not be considered a truly embodied approach by enactive theorists, who stress a constitutive relationship (Colombetti & Thompson 2008). Emotions are activated in therapy such that an individual's underlying beliefs and goals can be explored and challenged by a 'positive change voice' (Elliott & Greenberg, 2007).

However, in terms of cognitive skills programs for offenders, the original Reasoning and Rehabilitation program followed the cognitivist era mantra of 'cognition rules behaviour', which largely neglected the emotional aspects of experience. A clear example of this is the targeting of impulsivity (a deficit which is quite clearly highly emotional) through "thinking" techniques, with very little emphasis on emotional experience in the Self-Control module. R&R2, while making important concessions around the importance of bodily feelings in influencing cognition and behaviour (Ross et al., 2016), has not completely abandoned a dichotomous understanding of emotion and cognition. The Dual Process Model (Epstein, 1999), continues to present a dichotomy between the two through automatic vs deliberative thinking, an approach which bears little resemblance to phenomenological accounts of cognition and emotion (Colombetti, 2014). Thus, the R&R2 would benefit significantly from incorporating the emotional elements of cognitive (cognitive-emotional) skills, into treatment modules.

In addition, in accordance with the GLM (Ward et al., 2012), values are foundational phenomena, constituting an individual's core affect, which motivate individuals to pursue certain primary goods in the pursuit of a good life. This is achieved through secondary goods, the practical means of obtaining primary goods, which may be maladaptive or reflect

criminogenic needs (Ward et al., 2012). Placing a greater emphasis on personal values and goals in order to capture the motivation of participants, and improve engagement in the program, and present prosocial alternatives to problematic secondary goods, is likely to benefit rehabilitation programs significantly.

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