077 3646 3050
zoe.lodrick@googlemail.com

I am a UKCP registered Psychotherapist (registration number 04156573). My qualifications include an MSc in Integrative Psychotherapy and a BA Hons (first class) in Counselling. I had over 14 years experience working at Portsmouth Area Rape Crisis Service (PARCS) providing psychotherapy to women and men who had experienced rape, sexual assault and childhood sexual abuse; and providing training and consultation to professionals who work with victims/survivors of sexualized traumas (whether therapeutically or within the criminal justice system). I am generally recognised as having specialist knowledge/expertise with regard to human behaviour/response when faced with a perceived threat (especially sexual threat). Since April 2009, I have been a full-time Consultant and Trainer employed by ACPO Rape Support Programme, individual Police Forces, CPS areas and the MOD Police.

XXXXXX Constabulary has requested that I provide this statement to explain some of the complex psychological processes that underpin the thinking and behaviours of a victim exposed to an enduringly abusive relationship. To that end, I will begin by outlining basic human neurobiology within a perceived threat situation; I will then explain the impact of exposure to repeated threat as will be likely observed in an enduring domestic abusive relationship.

A brief explain of the human brain and threat detection:

The human brain is hierarchically organized into three sections: the lower, or reptilian, brain incorporates the brain stem and is primarily associated with the unconscious regulation of internal homeostasis (van der Kolk, 2003); the upper brain, or neo-cortex, is responsible for higher brain functions (Siegel, 1999), analysis of the external world (van der Kolk, 2003), and self-awareness and consciousness (Lanius et al., 2006); and the middle, or limbic, brain which surrounds the reptilian brain, is found in all mammals and is involved with learning, motivation, memory, emotional regulation and some social behaviour (Cozolino, 2002; Lanius et al., 2006).

Additionally, the brain consists of two hemispheres: right and left. The two sides of the brain, for the most part, work together yet specialize in differing functions (Siegel, 1999). The left brain is generally accepted to be closely identified with cortical functioning and the right more densely connected with the limbic and reptilian brain (Cozolino, 2002). The left

077 3646 3050
zoe.lodrick@googlemail.com

brain is concerned with what Siegel refers to as the "three L's – linear, logical, linguistic" (Siegel, 2003: 15); and the right brain is connected with the body, regulation of the autonomic nervous system (ANS), nonverbal aspects of language and more emotional functions (Cozolino, 2002; Siegel, 2003).

The brain structures involved in responding to threat are located in the lower and mid sections of the (predominantly) right brain. This means when threatened human beings respond, initially at least, instinctively and reflexively.

The part of the human brain primarily responsible for the detection of, and reaction to, threat is called *the amygdala.* The human brain is 'wired up' in such a way that information entering the system is rooted quickly to the amygdala (LeDoux, 1996). Threat detection, and ultimately survival, is given priority over all other brain functioning. The amygdala's role in threat detection is initially to filter all of the information entering the brain and to ascertain if there is any threat present. If a potential threat is perceived the amygdala will send an alert (via the hypothalamus) which triggers the release of fear hormones (Cozolino, 2002) and signals the system to direct oxygen into the body and specifically toward the muscles.

The human response once a threat is detected:

Commonly, when the amygdala detects threat, higher brain functioning is impaired (LeDoux, 2008; Siegel, 2003). The probable reasons for this are the necessity of the brain to surrender oxygen to the body, and the high levels of fear chemicals in the system (Ogden et al., 2006). This impairment of higher brain functioning affects the capacity for rational and logical thought as "the focus on immediate survival supersedes all medium- and long-term goals" (Cozolino, 2002: 252).

The human system (mediated via the amygdala) will respond, to the perceived threat, in one (or more) of five predictable ways: friend, fight, flight, freeze and/or flop (Lodrick, 2007). The first three are active defences and the final two are passive defences. The amygdala's objective is survival and it will only elicit the response(s) it deems most likely to ensure survival (Levine, 1997). It is important to note that this survival mechanism occurs at a time when the higher brain functions are suppressed and, as such, many people will elicit, seemingly, illogical/irrational behaviours when afraid. Consider, for example, the freeze

077 3646 3050
zoe.lodrick@googlemail.com

response noted in UK dwelling arachnophobes, or the arm flailing, and overt panic, demonstrated by a wasp phobic upon a buzzing creature entering the car they are driving.

In short, fear response in human beings is not logical.

The survival strategy adopted by the amygdala will depend on a number of factors, namely:

i. what is least likely to result in death or serious injury;
ii. what has worked in the past;
iii. what has been unsuccessful in the past;
iv. and, very importantly, what is most likely to maintain vital attachments (Lodrick, 2007).

I will consider each of the above points in turn.

i. What is least likely to result in death or serious injury:

Most people when asked to predict how they would react in a threat situation (such as a rape) would likely respond that they would actively defend themselves by, for example, screaming, fighting or running. However, the corresponding reality is that the majority of people faced with such threat do not actively defend themselves. The reason for the mismatch between our predicted reaction and our actual reaction is neurobiological. When imagining our response we utilize our higher brain function and think rationally and logically; yet when the experience actually occurs we respond instinctively.

If we now consider the defensive responses available to us at the time of a threat we will notice that, for the most part, the active defences of friend, fight and flight are not likely to serve the amygdala's overall aim of survival as successfully as the passive defences of freeze and flop.

Friend is the only active defence we are born with. When threatened (by thirst, hunger, exposure to the elements or potential abduction by a predator) human infants, incapable of fight or flight, will cry. This cry brings the caregiver to the infant's aid and survival chances are greatly increased. As we age we continue to use this most primitive of defensive fear responses. Throughout our life cycle when in fear we might scream or call out in the hope

077 3646 3050
zoe.lodrick@googlemail.com

that a rescuer will come.

In many inter-personally threatening situations, however, the likelihood of a victim screaming or calling out is minimal. The amygdala will only elicit responses it believes will increase the chances of survival and it will rarely, if ever, instigate a response that might decrease the immediate survival prospects. Although screaming out for help in an interpersonally threatening situation makes logical sense, it makes less sense when considered from a survival perspective (because the threatening individual may feel compelled to 'silence' their victim before help can arrive).

The primitive 'help me' defence is balanced by a second category of friend defence: the social engagement system. The social engagement system (Porges, 1995) is easily observed in a child who smiles, or even laughs, when being chastised (Lodrick, 2007). In this defence the threatened individual makes an effort to connect with, and/or pacify, the person they feel threatend by in an attempt to lessen the likelihood of serious injury or death. Contrary to the other active defences the social engagement system is likely to be utilized in the majority of inter-personal threat situations.

Friend – especially the social enagement response – is the dominant active defence adopted by most women.

Fight is unlikely to be utilized by many people. Children will rarely fight if the threat is an adult. Children lose in such situations and, as such, the amygdala would consider fight to be an unwise defence. Similarly, women are unlikely to fight if the threat is a man. Women are generally built less big and less strong than men and, regardless of their cortical beliefs, women's amygdalas' will seldom consider fight to be a response that will increase their survival chances. Men are statistically more likely than women to fight in a threat situation; however the amygdala has relatively realistic perspective of an individual's strength, speed and skill and will only instigate a fight response if it is confident of success.

Flight is the least likely used defensive mechanism in human beings. The reason is twofold. Firstly we cannot outrun our predators (Levine, 1997) and as such we have been genetically predetermined, as a species, toward a state of stillness when threatened. The second reason is

077 3646 3050
zoe.lodrick@googlemail.com

that human beings do not generally move away from a place of danger toward one of safety, rather if we flee a threatening situation we move toward the persons or places that we are connected to (van der Kolk, 2004). Because, in the UK, the majority of inter-personal threat situations occur within intimate relationships and/or within the place that we call 'home' the flight mechanism is largely rendered useless.

Freeze is commonly adopted in threat situations. The genetic predetermination of human beings is toward a state of stillness (Levine, 1997) in threat situations. The advantages of stillness in the presence of a significantly faster predator are obvious. Between mammals of the same species the freeze response indicates submission, with the dominant animal recognising, in the absence of any challenge, that they do not need to prove their ability to maim and or kill. The dominant animal will invariably leave the subordinate animal alone after reinforcing their dominance by some recognised gesture (often a stance or a call).

In the majority of inter-personal threats between humans, the advent of one party freezing is either ignored or used as justification, by the offender, to carry out the assault – whether verbal, physical or sexual (Lodrick, 2007).

Flop occurs if the freeze mechanism fails. If the threat increases, despite freeze having intended to put an end to the situation, the amygdala will trigger the autonomic nervous system (ANS) to shift from predominantly sympathetic activation toward parasympathetic activation (Rothschild, 2000). Musculature tension is lost and "both body and mind become malleable (hippocampal and cortical functioning will very likely be severely impaired at this point). The survival purpose of the flop state is evident: if 'impact' is going to occur the likelihood of surviving it will be increased if the body yields, and psychologically, in the short-term at least, the situation will be more bearable if the higher brain functions are 'offline'. People who have elicited flop as a survival mechanism...will bend to the will of the person perceived as threatening in an attempt to stay alive" (Lodrick, 2007: 21).

Having considered the 5Fs it is apparent that in inter-personal threat situations humans (especially women and children) are most likely to utilize the following defensive strategies:

- social engagement with the offender;
- passive defences – freeze then flop.

077 3646 3050
zoe.lodrick@googlemail.com

ii. What has worked in the past:

The purpose of any amygdala mediated threat response is to stay alive until the danger has past (Levine, 1997). Success of the strategy adopted will therefore be gauged in terms of survival, and successfully utilized defences will be reinforced. This is highly useful in the training of soldiers or police officers whereby an active defence (friend, fight or flight) is consistently required in threat situations. Each time a soldier or police officer successfully utilizes an active defence (whether in a training environment or in the field) the likelihood of that response being utilized again is strengthened.

The same reinforcement process is apparent in the strengthening of passive defences seen in victims. If a man, woman or child becomes pacified (freeze or flop) under a threat situation, and they survive, the likelihood of them utilizing a passive defence when faced with a similar situation increases.

The consequences of the amygdala's learnt response can be grave for some of the most vulnerable people in our society; leaving them easy prey for those who wish to exploit their lack of active defences and furthermore less able to disentangle themselves from such relationships (more on this later).

iii. What has been unsuccessful in the past:

If an active defence is attempted, and overwhelmed, it will be weakened. If a child tries to hide from an angry parent only to learn that hiding simply angers the parent further the child is unlikely to hide next time. If a wife says "no" to her husband's unwanted sexual advances only to find that her "no" makes him angry and more persistent she will be less likely to verbalise her "no".

iv. What is most likely to maintain vital attachments

Because the amygdala is densely linked into the neurological processing of both fear and attachment (Cozolino, 2002), survival and maintaining attachments are inextricably interwined (Porges, 2004).

077 3646 3050
zoe.lodrick@googlemail.com

I have outlined above (see section on 'flight') the tendency for humans not to flee situations of danger to move toward one of objective safety. Instead if we flee we move toward the person or place that we are attached to. "This has significant implications for individuals who perceive threat in their 'home' and/or perpetrated by someone they love. When confronted with a significant threat from someone depended upon, most people respond in a way that best ensures continued attachment to that person. Meaning, that even when escape is objectively possible, the likelihood of the amygdala eliciting a fight or flight response is low. This, coupled with the amygdala's tendency to replicate previously 'successful' survival strategies, results in many people being vulnerable to repeated (verbal, physical and/or sexual) assaults by their 'loved ones'" (Lodrick, 2007).

Human beings are 'hard wired' to move toward the person(s) they are most attached to when they are hurting or fearful – for small children that is usually a parent (or parent substitute) and for an adult it is likely to be a partner (or partner substitute).

This mechanism is readily observed in the behaviour of a jilted lover. The rejected individual probably has a support network of friends, family and loved ones, yet the universal truth is that she/he probably wants his/her 'ex' to comfort him/her. Despite the fact that this is illogical, most people can relate to it because they have experienced it (either as the jilter, the jilted or a friend/family member). When the pain caused to the 'injured' party is compounded by physical and/or sexual assault the pain felt is greater and the resulting 'pull back' toward the 'ex' is also greater.

The impact of exposure to repeated or enduring threat

The defensive strategy utilized by a woman in a threat situation, at the hands of her male partner, is likely to be passive. In the first instance she is female and he is male and a fight response is likely to be rejected by the amygdala as liable to increase, rather than decrease, the chance of death. Flight is unlikely to be utilized as, contrary to logical belief, humans do not run toward safety rather they move toward the familiar. As she is already within the place that she is 'wired up' to move toward she has, in survival terms, nowhere to go.

In an enduring domestically abusive situation, the likelihood of a passive response being elicited would increase with each assault / threat situation. Dr Joseph LeDoux (Centre for

077 3646 3050
zoe.lodrick@googlemail.com

Neural Science, New York University) explains that although it might be expected that exposure to repeated threat would give rise to behaviours that allow the individual to avoid and/or escape future situations, in reality the individual is simply conditioned to respond in a certain way to the given threat (LeDoux, 2008). In a domestically abusive relationship the victim is likely to be conditioned to become passive to any threat cue.

The extent to which we use attachment as a survival strategy can be observed in the phenomena commonly referred to as 'Stockholm Syndrome' (van der Kolk, 1996). The term stockholm syndrome was adopted after a 1973 bank siege in Sweden resulted in the hostages 'protecting' the criminals who had taken them captive, resisting rescue and ultimately refusing to give evidence against the hostage takers. Stockholm syndrome results in the victim experiencing positive feelings toward their victimizer, negative feelings toward potential rescuers, support of the abusers' reasons and behaviours and an inability to engage in behaviours that will assist detachment or release (Carnes, 1997). It develops after just four days of captivity within which the victim fears for their integrity, is isolated from other people and is subject to cruelty interspersed with small kindnesses. Hostage situations are relatively rare yet the described conditions are frighteningly common in domestic situations (Herman, 1992).

Many of the behaviours observed in women who are in abusive relationships are readily understood when viewed as symptoms of stockholm syndrome. The fact that a woman might endure repeated physical and sexual assaults without seeking the help of the authorities is central to the syndrome. The fact that stockholm syndrome results in the victim showing support for the abuser's reasons and behaviour explains why a woman might:

- accept humiliating and controlling behaviour in front of friends and family apparently without protest;
- perform the role of a domestic and/or sexual slave;
- go to great lengths to please her partner and acquiesce to his every whim;
- make every effort to protect her partner from the negative judgement of others even if this required her to tell lies and/or attract their negative judgement(s) onto herself.

On occasion, the secrecy will be broken and the woman might confide in someone. She may even, usually with support, manage to get away from him for a while. Commonly if a woman

077 3646 3050
zoe.lodrick@googlemail.com

speaks out and/or manages to leave she will quickly return to the abuser, and to supporting his reasons and behaviour, especially if the abuser is able to maintain contact with her. This is often a difficult process to understand and frustration with the woman and perhaps even a belief that she 'likes' or 'deserves all she gets' will be adopted by those who had tried to support her to leave or stay away.

The psychological phenomenon that underpins this behaviour is actually very simple and universally experienced. If I might bring your attention back to the earlier example of the jilted lover who wants his/her 'ex' to comfort them, in preference to the alternative comfort offered by their friends/family. In reality the jilted, and hurting, lover might temporarily move toward friends and family for support and to 'sound off' about how they have been wronged. Typically the jilted party, given the option, will return to the jilter and seek reassurance and comfort. When the friends and family mention the fact that they were 'hurt' or 'wronged', by the partner they have returned to, they are likely to minimise the situation or claim their beloved 'has changed'. Once again, in a domestically abusive relationship, the pain and humiliation are greater and, as such, the pull-back, minimisation and justification will also be greater.

All of this simply makes women in these situations more vulnerable to the abusive behaviours of their partners. In short, women who manage to extricate themselves from such relationships are the exception rather than the rule; those who manage to stay away, despite their partner's wishes to the contrary, are rarer still.

References

Carnes, P. (1997). *The betrayal bond: breaking free of exploitative relationships.* Florida: HCI.

Cozolino, L. (2002). *The neuroscience of psychotherapy: building and rebuilding the human brain.* New York: Norton.

Herman, J. L. (1992). *Trauma and recovery: from domestic abuse to political terror.* New York: Basic Books.

Lanius, R., Lanius, U., Fisher, J. & Ogden, P. (2006). *Psychological trauma and the brain: toward a neurobiological treatment model.* In Ogden, P., Minton, K. & Pain, C. (2006). Trauma and the body: a sensorimotor approach to psychotherapy. New York: Norton.

LeDoux, J. (1996). *The emotional brain: the mysterious underpinning of emotional life.* New York: Simon & Schuster.

LeDoux, J. (2008), Amygdala. *Scholarpedia. 3(4): 2698*

077 3646 3050
zoe.lodrick@googlemail.com

Levine, P. with Frederick, A. (1997). *Waking the tiger: healing trauma.* Berkley, California: North Atlantic Books.

Lodrick, Z. (2007) Psychological trauma – what every trauma worker should know. *The British Journal of Psychotherapy Integration. Vol. 4(2), 18-28.*

Ogden, P., Minton, K. & Pain, C. (2006). *Trauma and the body: a sensorimotor approach to psychotherapy.* New York: Norton.

Porges, S. (1995). Orienting in a defensive world: mammalian modifications of our evolutionary heritage. A polyvagal theory. *Psychophysiology, 32, 301-318.*

Porges, S. (2004). Neuroception:a subconscious system for detecting threats and safety. *Zero to three, May 2004, 19-24.*

Rothschild, B. (2000). *The body remembers: the psychophysiology of trauma and trauma treatment.* New York: Norton.

Siegel, D. (1999). *The developing mind: how relationships and the brain interact to shape who we are.* New York: The Guildford Press.

Siegel, D. (2003). *An interpersonal neurobiology of psychotherapy: the developing mind and the resolution of trauma*. In Solomon, M. & Siegel, D. [Eds] (2003). Healing trauma: attachment, mind, body and brain. New York: Norton.

van der Kolk, B (1996). *The complexity of adaptation to trauma: self-regulation, stimulus, discrimination, and characterlogical development.* In van der Kolk, B. McFarlance, A. & Weisaeth, L. [Eds] (1996). Traumatic stress: the effects of overwhelming experience on mind, body and society. New York: The Guildford Press.

van der Kolk, B. (2003). *Posttraumatic stress disorder and the nature of trauma.* In Solomon, M. & Siegel, D. [Eds] (2003). Healing trauma: attachment, mind, body and brain. New York: Norton.

van der Kolk, B. (2004). *Unpublished conference presentation on trauma*. London: The Institute for Arts in Therapy and Education