Applying attachment theory to effective practice with hard-to-reach youth:   
the AMBIT approach

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# Abstract

AMBIT (Adolescent Mentalization Based Integrative Treatment) is a new and developing approach to working with hard-to-reach youth. The first section of this article briefly reviews the core features of AMBIT. We then explore the application of attachment theory to understand what makes young people ‘hard to reach’, in particular by considering theory of epistemic trust. This enriches the rationale for the importance of an individual keyworker model beyond its organizational merits, emphasizing the need for keyworkers who are well connected to the wider team. Following this, we consider the role of attachment processes in developing a shared team culture (shared experiences, shared language, shared meanings) to support a context where this epistemic trust can be fostered and used. Lastly, we apply attachment theory to processes of team training and development by exploring what enables a team to function in an exploratory way that is receptive to new developments and change. An innovative approach to treatment manualization using a wiki format is proposed as a way of supporting this process.

# Introduction

Adolescent Mentalization Based Integrative Treatment (AMBIT) is an emerging team-based approach to working with highly troubled adolescents and young adults. It is being developed in collaboration with over 60 local teams from UK state-funded social care and the National Health Service, as well as non-statutory services funded by philanthropy. We begin by briefly outlining some of the core tenets of AMBIT (Bevington, Fuggle, Fonagy, Asen, & Target, 2012; Bevington & Fuggle, 2012) and will then articulate how attachment theory supports our understanding of hard-to-reach young people, the processes of team functioning, and the process of supporting teams to work in new ways.

# Section 1. The core practical clinical features of AMBIT

## 1.1 Hard-to-reach youth

The descriptive label of “hard to reach” could be seen as pejorative or blaming. Common sense dictates that these young people *should* seek help, since they appear troubled. The core assumption of AMBIT is that “the hard to reach” are hard to reach for reasons: their avoidance of help is frequently active and intentional, rooted as it may be in profound disorganizations within their attachment systems (Asen & Bevington, 2007). Such help-seeking as there is may manifest in unconventional ways (Veale, 2011), as offers of help (caregiving) are liable to activate disruptive attachment behaviours. Therapeutic approaches commonly elicit specific hostility in relation to the experience of therapeutic contact, with consequent deterioration of the client’s condition (Fonagy & Bateman, 2006a).

‘Hard to reach’ is a heterogeneous description, but commonalities are observed in young people served by the wide variety of AMBIT-influenced teams. Their social ecology is commonly marked by the absence of family or even informal systems of care that support them to seek or access help. Family members may actively dissuade such a young person from seeking help, often on account of their own preconceptions, rooted in their own harsh experiences (Dozier et al., 2009), creating expectations of punitive outcomes that will result from engaging with services.

Another common feature in such young people is the co-occurrence of multiple, reciprocally-synergistic, difficulties.. These are rarely if ever limited to a single functional domain (for instance the biological, intra-psychic, familial, social, educational or legal/forensic domains). Despite this fact, ‘separate’ problems within such domains may be judged to fall just beneath “caseness” thresholds that would qualify for specialist services, even though cumulatively the burden of these multiple problems upon a young person’s developmental trajectory seriously diminish the likelihood of attaining independence and security.

Implicit in this picture of poorly-supported youth who are either non-help-seeking or are doing so in aberrant ways, is the fact that their biographies are marked by chaos and crises which add to the difficulties for any service trying to engage and work therapeutically with them.

**A case example**

John (15 yrs) has a single parent with significant substance use problems, and himself regularly uses cannabis and alcohol. Currently excluded from school for verbal aggression and serial truanting, he mixes with an older delinquent peer group. There are concerns that his bravado and dismissing attitude towards social workers, youth offending officers and educational welfare officers may disguise anxiety and depression. Recently he has cut himself, though he denies any problems other than wanting rehousing, away from his mother. His mother’s reaction to approaches from helping services is characterised by suspicion and at times outright hostility.

**1.2 AMBIT as a mentalizing approach**

AMBIT is a “mentalizing approach”. Mentalizing – the function of coming to understand and communicate about behavior (one’s own or that of others) in mental state terms - is born in the context of an attachment relationship, and is the key to social communication and the gathering of social information (Fonagy, Luyten, & Strathearn, 2011). It is through mentalization that the behaviors of self and others are explained *by reference to the present mental state and intentions* of the agent (beliefs, fears, hopes, wishes, etc.). When activated (chiefly in the prefrontal area of the cortex), mentalization reveals itself in behaviors such as open acceptance of the limits of one’s current understanding about the minds of self and other (the non-expert stance), inquisitiveness to develop and enrich such understandings, and humor that may be gently self-deprecating or focused upon the comedy of errors in the common human experience of misunderstanding.

Working with patients with severe personality disorder, therapists frequently find the maintenance of mentalizing (in self and in patient) is challenged by emotional arousal, even to quite small fluctuations in the prevailing level of affect (Fonagy and Luyten, 2009). This is a biological vulnerability in the capacity shared by all (Higgitt & Fonagy, 1992; Fonagy, 1998), but especially vulnerable in such patients, and is in this sense a “great leveler” in the power dynamics of the therapeutic relationship. A strong body of evidence (Fonagy et al 2002) supports the notion that mentalizing is not a biologically heritable function, but rather that it arises specifically in the context of key attachment relationships, through a process whereby the infant iteratively experiences her own mental states *being accurately mentalized* by a trusted other, and offered back via imitative facial and verbal gestures (“marked mirroring”) that convey the sense of being-made-sense-of.

Following the collapse of a patient’s (or worker’s) capacity to mentalize, a breakdown of the helping relationship is likely to follow, although once overwhelmed mentalization may be recovered in the context of another mentalizing focus – most commonly provided by trusted (secure) attachment figures (Fonagy & Target, 2002). The paradoxical dilemma in work with hard-to-reach youth, as described above, is that it is precisely therapeutic contact which is likely to challenge both the young person’s and the “helper’s” mentalizing capacity, on account of the anxiety these contacts provoke. In the terms of this explanatory framework, dismissing, preoccupied or disorganized attachment behaviours are likely to be triggered by a loss of mentalizing that in turn fails sufficiently to regulate affect (Sharp et al, 2011) .

Fonagy and colleagues (Fonagy, Gergely, Jurist, & Target, 2002) have developed a taxonomy of three key “*pre-mentalistic”* (or non-mentalizing) states of mind which we have found helpful in understanding, and developing more appropriate responses to, problematic therapeutic and worker-to-worker interactions in what are often high-stress situations. The three relate directly to functional modules whose sequential maturation contributes to the neurodevelopment of mature mentalizing. They have been termed (a) the *teleological mode*: “Quick-fix” thinking that becomes focused on specific physical outcomes as the solution to psychic discomfort (attachment behaviours can be seen as highly teleological.) (b) The *pretend mode:* an “Elephant-in-the-room” form of thinking that ignores or dismisses the present reality and affect, often under the guise of “fine words”. (c) *psychic equivalence:* an “Inside-out” form of thinking that equates one’s thoughts directly with the very reality they are attempting to represent – so that the thinker “lives in his thoughts, rather than vice versa”.

Mentalization-based work requires the maintenance of a “mentalizing stance” by the therapist (Bateman and Fonagy, 2012) that has been characterised as comprising curiosity and a tolerance of not-knowing, with explicit focus on identifying and exploring (through “what” questions rather than “why” questions) any patterned breaks that are noticed in mentalizing. It eschews assumptions of knowledge about the patient’s mind, in favour of offering instead a mind demonstrating a willingness (an enthusiasm, even) to be changed itself through coming to a more accurate understanding of the patient’s mind. The stance promotes also the acknowledgement and positive connotation of those instances where mentalizing in the patient becomes apparent.

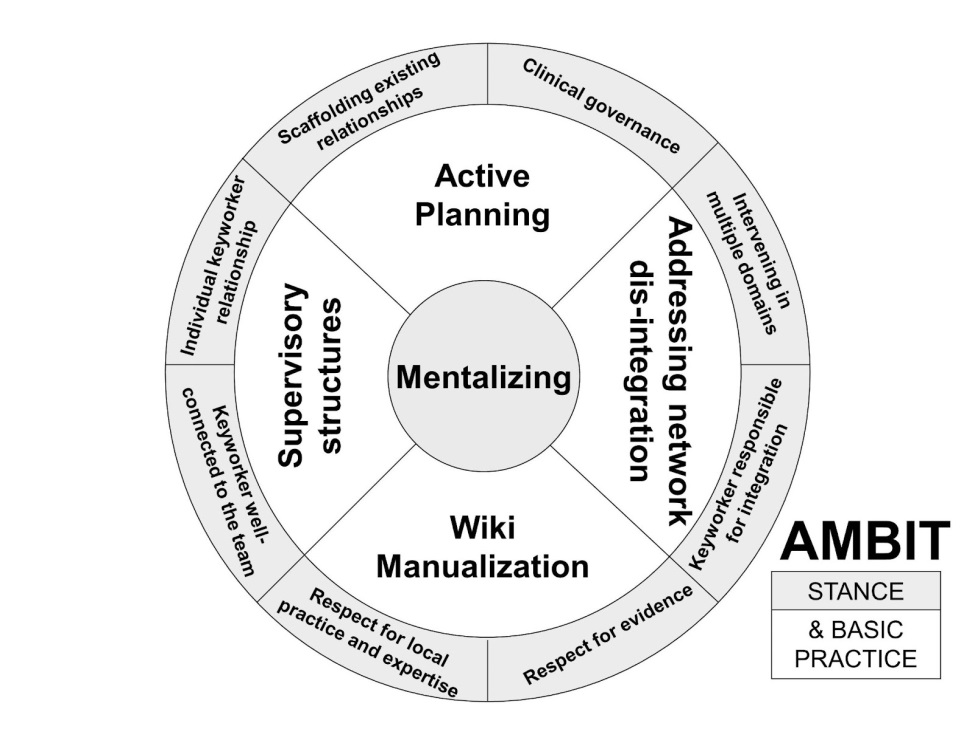
## 1.3 AMBIT as a whole-team approach

AMBIT training is offered only to whole teams on the assumption that working with hard-to-reach groups requires an approach where intra-team communication and attachment security between worker peers is seen as counteracting the entropic influence of this challenging client group.

The intention in AMBIT is to provide a framework for systematic team practice that helps staff retain a mentalizing stance in contexts that challenge their own mentalizing capacity on account of the anxiety they (quite properly) provoke, or which appear to present few immediate opportunities for therapeutic change, at which point teleological attachment behaviours are liable to be triggered, themselves acting as barriers to therapeutic change.

## 1.4 The AMBIT stance

The AMBIT stance is an extension of the “mentalizing stance”, designed to facilitate its delivery in non-standard, outreach-based settings with this heterogeneous client group who are unlikely to attend standard clinic-based appointments. It is designed as a memorable set of “grab-rails” for use in unsettling situations, to support and prompt workers to maintain a safe and therapeutic balance between what are often competing priorities in the complex and chaotic worlds inhabited by their clients. We hypothesize that holding a dynamic balance between these stance elements creates conditions for the activation of (often vestigial) internal working models of secure attachment in key relationships (between worker and client, between worker and colleagues). The AMBIT stance is about setting a context in which therapeutic change becomes more possible.



**Figure 1. The AMBIT stance and Basic Practice**

The AMBIT stance is defined by eight paired (and to an extent, in field working conditions, mutually *incompatible*) markers (the outer ring in figure 1), which are linked to four basic practice elements. All are integrated around efforts to protect and promote mentalizing, which is the axis (or axle) carrying forwards therapeutic change. Beyond previous publications (Bevington et al., 2012; Bevington & Fuggle, 2012) the fullest description of AMBIT and its locally-adapted variants is accessible via the signposting site **www.tiddlymanuals.com** which offers “open-source” access to its online manuals. We do not repeat the full description here, but focus on those elements most obviously drawing upon Attachment theory and practice.

## 1.4.1 AMBIT: Balancing multi-domain work with integration

Because the problems faced by such youth are often multiple and complex, interventions that address only single domains (*intrapsychic* in the form of one-to-one therapy, or *biological* in the form of harm reduction or medication, or *family* as in systemic therapy, or *social-ecological* as in educational or youth-work interventions) may be experienced as failing to recognize their overwhelming circumstances. This misattuned or “non-contingent” (Gergely and Watson, 1996) response, which arises out of the therapist’s preconceptions of the client’s need rather than their actual need, may itself trigger disruptive memories of neglect and abandonment (Dozier, Stowall-McColough, & Albus, 2008). Examples include offering therapy when the immediate experience is hunger, or educational reintegration when the immediate concern is about threatened legal culpability for a recent offence.

Alternatively, a large, multidisciplinary “team around the child” may gather, offering the promise of multidomain intervention (see Twemlow et al., 2001). However, paradoxically this may prove a challenging test for the young person’s (often severely limited) capacity simultaneously to develop not just one, but *numerous* trusting relationships with different professionals offering help, who often approach their work from within the constraints of different theoretical and organizational positions. Misunderstandings (non-mentalizing) between separate parts of such multiagency networks are common, as are the often disrespectful “mythologies” about each agency that build up over time and may be transmitted to young people and families either implicitly or explicitly. We propose that risk in complex systems is closely associated with the failures of different parts of that system accurately to mentalize each other. Such contexts (often perceived as contradictory) may overwhelm the young person, resulting in behavior that can be very hard for the professional network to make sense of. In the AMBIT model we have described these as “dis-integrated” interventions, such that, in spite of the best intentions from all members of such a network of care, the experience of such care is aversive for the young person.

**Case example**

John describes how he must see four different workers every week:

* Social worker (prime concern: safety, and adequacy of parental supervision)
* Youth offending officer (remit: prevent escalation of petty offending, avoid possibility of custodial sentence.)
* Educational welfare officer (prime concern: failure to comply with statutory obligations to attend education, disruption caused at school)
* Family worker (prime concern: John’s mother may not understand the impact her own substance use has on her son’s anxiety for her safety).

John reflects in anger that none of these people seem to agree on what to do, so none of them really want to help him, and he can’t get on with anything if he has to keep appointments with all of them.

While biologically we are all prepared to create bonds with multiple caregivers, this generic process becomes inevitably constrained in individuals whose previous attempts at forming attachments were not crowned by great success (Feeney, 2008). AMBIT counters the opportunity for dis-integrative processes implicit in multidomain working by the “balancing” prompt for the keyworker to take proactive responsibility for integrating different parts of the young person’s care network, and has developed specific tools and practices to support this.

## 1.4.2 The AMBIT keyworker: balancing exploration and risk

AMBIT has as its primary therapeutic goal the establishment and maintenance of therapeutic contact. Why? In attachment terms, the goal for the relationship with the AMBIT keyworker is the activation of an internal working model of a secure attachment relationship, in order to provide the basis for emergent social curiosity and learning. We will expand on this aim more fully below, but for now it is important to note that a marker for the young person’s achievement of sufficient security in the context of a helping relationship is his capacity to move beyond responding to the immediate social context and *explore* his predicament in the therapeutic milieu. Rather than being directed at elements of the external world, *exploration* hererelates to the young person’s attempts to track, contextualize, and “play” with the narrative of how they came to face their current predicament, and where they might opt to go next; as therapy progresses, the intention would be to move this narrative from incoherence towards coherence (Slade, 2008) through use of a key relationship to a protective, responsive, supportive, and, above all, predictably available attachment figure (Grossmann, Grossmann, Kindler, & Zimmerman, 2008). Supporting secure exploration has a great deal in common with what Ryan and colleagues have fortuitously termed “supporting autonomy in relatedness” (see Ryan, 2005). Bretherton & Munholland (2008) suggest that the freedom to explore the internal, as well as the external, world is a key marker of attachment security throughout life (see also Grossmann et al., 2008).

This perspective on exploration is an important aspect of mentalization, reframing notions of the secure base derived from attachment studies in terms of the curious, tentative and not-knowing stance. AMBIT recognizes the vulnerability of the worker’s own capacity to mentalize in such intense relationships, and there is strong emphasis on disciplined ways for “well-connected” teams to support the mentalizing of fieldworkers through peer-to-peer interactions, expanded upon below.

## 1.4.3 AMBIT: Balancing exploration of evidence and local expertise

AMBIT eschews the notion that a single standard model of practice applicable across multiple settings is ever a practical goal, given heterogeneous client groups and the wide variety of organizational contexts in which such work is to be delivered.

**Examples of (>60) AMBIT-influenced teams in the UK:**

* A statutory (NHS and Social Care) service working with young people on the edge of the care system in N. London (AMASS, Islington)
* A statutory (NHS) intensive outreach service with the aim of reducing in-patient admissions for acutely unwell adolescents in SE London (Bexley Intensive Support Service)
* A statutory (NHS) substance use service for complex multiply disadvantaged youth across a mixed metropolitan and rural area in East Anglia (CASUS, Cambridgeshire).
* A voluntary sector project working with highly socially-excluded and gang-related youth, using music-making as the context within which mental health interventions are delivered to previously non-help-seeking youth (MAC-UK, London).
* A statutory (NHS) child and adolescent mental health service delivering integrated day hospital, assertive outreach and early intervention in psychosis services for severely unwell youth in Scotland (Lothian CAMHS).

Instead, AMBIT strives to offer an explicit, manualized platform upon which the development of effective and specifically attuned *local* practice and implementation is supported. This platform includes evidence-based practice [EBP] protocols such as cognitive behavioral therapy, family work, etc., integrated around the overarching aim of improving mentalizing capacity in the young person, the family and across the multiagency system. AMBIT’s stance includes the requirement of respect for both “local practice and expertise” and for scientific evidence – acknowledging that there may be tension between these two in the exigencies of fieldwork . We conceptualize EBP with less emphasis on specific intervention protocols, focusing instead on empirically supported general content-domain practice elements (Chorpita, Daleiden, & Weisz, 2005; Rosen & Davison, 2003).

An unusual feature of AMBIT’s wiki-based approach to treatment manualization (discussed further below) is that it actively promotes continuous updating and improvement *by local teams* in “locally-attuned” versions of the “core content” of the AMBIT manual. This response to the rejection of a “one-size-fits-all” approach is also an invitation for local teams to adopt a “learning organisation” (Senge, 2006) stance towards the gathering of local evidence and learning about what works in their particular cultural and service ecology.

This element of AMBIT is inspired by “open-source” methods of web-based software development (viz. the “Firefox” browser), in which virtual communities creatively and largely voluntarily respond to challenges by offering innovative solutions to specific technical and conceptual difficulties around a specific project, with systems in place to organize and field test the incrementally advancing whole. In this sense the model described is close to the definition of the “deployment-focused model” for the development of new effective treatments, as defined by Weisz (2004) and Weisz and Simpson Gray (2008). AMBIT specifically draws on much of this reasoning in its approach to the development of practice.

**1.4.4 AMBIT: Balancing active planning and security**

It is a feature of complexity and the many different presentations that teams using AMBIT are faced with (and particularly of a mentalization-based approach that stresses the need for a *particular* understanding of the *specifics* of person’s present subjective dilemma) that a high degree of flexibility and “light-footedness” is required in ordering and delivering interventions. This is necessary if the worker is to maintain a contingent attunement to the young person’s reality that aims to minimize the triggering of attachment behaviours that would undermine mentalizing and the therapeutic relationship.

This means that alongside the development of a therapeutic working alliance, AMBIT practice might include enhancing client motivation, teaching skills for coping with symptoms, facilitating therapeutic processing of distressing emotions, or more eco-systemic interventions with (for instance) family, education, social care or offender management systems. The AMBIT discipline of “Active Planning” in this work is not described in detail here, but emphasises the need to balance attention to scaffolding *existing* (attachment) relationships (that will remain even though these may be at least sub-optimal), with a counterbalancing stress on maintaining good ‘Clinical Governance’ (especially in terms of risk management).

Without a high degree of structure in planning and sequencing the work, the risk is that the worker is drawn into a reactive relationship that loses any proactive therapeutic leverage. The emphasis in AMBIT on very robust supervisory structures counters this threat: the AMBIT stance element insisting on the keyworker being “*well-connected*” to the team is enacted through very frequent and disciplined ways of discussing case material (see below) that are designed to ensure that the worker’s own mental state is addressed, as well as maintaining an outcomes focus as far as the active planning of therapy is concerned.

**Examples of AMBIT-influenced practice:**

John’s keyworker met him for an initial assessment at a place of John’s choosing – a local café. After preliminary risk assessment this was agreed by the team; it was the only place John was prepared to meet “yet another worker”. Assessment proceeded across a number of meetings and via telephone contacts.

Despite several missed follow-up appointments, regular text messaging was established, following initial boundary-setting in the café. Further café meetings took place, and a meeting in the local youth club, where the worker was able to report to John about his own efforts to rationalize (reduce) the number of face to face contacts required for other parts of the multi-agency network, responding to John’s sense of being overwhelmed.

The worker was in frequent contact with these other agencies, offering to some extent to act temporarily as a “remote operating arm” addressing some of their priorities, recognizing that the alternative was that John would likely retreat and refuse all contact from these agencies, triggering the escalation of statutory interventions that all parties were keen to avoid.

John’s overarching concern in these early meetings was the sense that everyone was treating him as a child, attributing frailties that he robustly denied. As he talked about his sense of responsibility for his mother, family work began as “virtual family therapy” - the worker occasionally inviting John to wonder aloud about what his mother would make of their conversation if she was able to listen quietly, and praising evidence of any small mentalizing efforts on John’s part. Eventually a meeting at John’s home was arranged, at which he agreed his mother could be present.

Negotiations with school were primarily conducted through the keyworker now, rather than the welfare officer; minimum required changes that school could accept were agreed, and a stepped program of reintegration was planned.

Over time exploration of his self-injury and anxiety became possible, and basic anxiety (cognitive behavioral) management strategies were addressed. As part of this, his use of cannabis and alcohol was discussed, recognizing that he had found in this a partly-effective “quick fix” for his worries, that nonetheless had other associated costs. A meeting with a psychiatrist was arranged at which John’s keyworker accompanied him.

# Section 2. Theoretical foundations: Attachment and the pedagogic stance

## 2.1 The pedagogic stance

The implausibility for a chaotic youth simultaneously to forge strong links with a number of adults has led us to dictate that AMBIT encourages the development of an attachment relationship with a single worker. The fostering of the relationship between the young person and an individual worker is at the heart of the AMBIT approach. While many may question the explicit commitment to the establishment of a bond with the young person and the eschewing of ‘therapeutic neutrality’, there is a strong line of theoretical reasoning underpinning this decision, which we shall outline here.

We conceive of psychopathology in this group of young people not simply in terms of maladaptive internal working models acquired as part of harsh personal histories, although, of course, there is ample evidence for this being the case (e.g. Stronach et al., 2011). We see these young people as struggling to manage without a key capacity for social adaptation: the pedagogic stance (Csibra and Gergely, 2011). Gergely and Csibra (2005) advanced a powerful theory postulating the existence of a human-specific, cue-driven social cognitive adaptation of mutual design dedicated to ensuring efficient transfer of relevant cultural knowledge. Humans are predisposed to “teach” and “learn” new and relevant cultural information from each other. We navigate ourselves through the social world by being open to new learning about objects and social contexts, expected behaviors, and corrections of one’s own ideas, beliefs, expectations, and fantasies in line with communications from others, as well as the situations we are presented with and create for ourselves. Adaptation of this kind is not limited to infancy but is part of a developmental progression throughout life, with particular developmental phases (such as adolescence) when the capacity to “learn” from “teachers” is called upon intensively.

Human communication is specifically adapted to allow the transmission of necessary (a) cognitively opaque cultural knowledge (e.g., what a “spoon” is for), (b) kind-generalizable generic knowledge (e.g., sounds can be represented by letters), and (c) shared cultural knowledge (e.g., “God is Great”). In other words, we have an evolutionarily selected interpersonal channel for acquiring information about the world that we can trust, a kind of biologically designed “epistemic superhighway” for the transmission of socially maintained information relevant for survival in a community.

The pedagogic stance is triggered by special cues from teachers to indicate to the child that the “about-to-be-transmitted information” is trustworthy and generalizable beyond the current situation (Gergely, 2007). These so-called “ostensive communicative cues” in infancy include eye contact, turn-taking contingent reactivity, and special tone (“motherese”). They have in common the *marking* of a relationship as *special* by paying attention to the subjectivity of the individual being taught; this occurs just prior to commencing communication aimed at transmitting content that is to be generalized. Ostensive cues establish the adult (normally the caregiver) as having the infant’s subjective experience in mind (i.e., mentalizing, or, putting it more plainly, having concern for and about the child).

We believe that this template continues to hold beyond infancy. That is, we continue to require special triggers to open our mind to take in new information about the world. We set our mind to learn rapidly from others via the epistemic superhighway of social communication when the communicator has first established their “credentials” to us by having shown accurate understanding of us. The communicator must first demonstrate interest in the mind of the intended recipient of the information before the recipient is ready to learn (i.e., to generalize the new information beyond the specific setting). Mentalizing the other – making them feel that we see the world from their perspective – is a generic way of establishing “epistemic trust”. Our subjectivity being understood is a necessary precondition, a key to open up our wish to learn about the world. Most importantly from the point of view of the “hard to reach”, this includes learning about the social as well as the internal world.

Attachment and mentalizing are loosely coupled systems (Slade et al, 2005). As described above, mentalizing develops in the context of an attachment relationship. Measures of maternal self-reflective function (aka mentalizing) in the Adult Attachment Interview are more predictive of infant secure attachment than maternal attachment style *per se* (Fonagy et al 1991). It is through the iterative experience of experiencing this other mind *being changed through contact with (and understanding of) our own mind* that self-agency, and mind-mindedness (of one’s own and of others’) develops, and thence affect regulation, trust, and the capacity to withstand triggering attachment behaviours (preoccupied, dismissing, disorganized) that may be seen as (in our terminology *teleological*) attempts to modulate affect in the context of interpersonal stress (Sharp et al, 2011). Attachment as a system, in our view, serves an important additional evolutionary function of engendering general epistemic trust in the social world through generating the expectation of sensitive responsivity from others – an indication to the recipient of communication that *they are known*. There is a well-established body of evidence supporting the greater cognitive openness and flexibility (including superior academic performance) of those with secure attachment (Thompson, 2008), which may have its roots in the greater openness to social communication of those with more stable expectations of being comforted when distressed (Grossmann et al., 2008).

## 2.2 Why are the Hard to reach hard to help?

So why are the “hard to reach” so hard to reach and help? Probably, developmentally the experience of feeling thought about makes us feel safe enough to think about the social world. A pernicious aspect of social trauma may mean the destruction of trust in social knowledge of all kinds. Social adversity has the potential to close the epistemic superhighway, leaving these individuals inaccessible to change by routes other than precommunicative learning processes shared with nonhuman species (operant and Pavlovian conditioning).

Our natural response as ‘treaters’ or teachers to the experience of being confronted with a closed (blocked) communicative epistemic superhighway is to go back to teleological (nonmentalistic) methods of teaching by punishment and, to a lesser extent, reward (the latter requiring a better understanding of the psychological position of the other). Our typical, largely nonsocial strategies of handling antisocial behavior (imprisonment, boot-camps) are powerful testament to the helplessness we can feel towards influencing individuals who we experience (temporarily) as inaccessible to human communication.

This mentalizing model has important implications for the basic clinical approach we take towards the “hard to reach”. Evolution has “prepared” our brains for psychological therapy in that we are ready to learn from others about ourselves, just as we are ready to learn from them about the social world. As developmental research shows (Gergely, 2007), we find our own subjective experience within the *other*, not within itself, so we are normally eager to learn about our own opaque mental world from those around us. We are prepared to learn most readily about our minds from figures we are attached to, that is, in conditions of epistemic trust. Where there is epistemic *mis*trust following social adversity and similar experiences, there is no basic belief in the genuinely benign nature of the transfer of information. The mechanism of information transfer is closed, and such individuals are hard to reach by our preferred methods of human communication.

## 2.3 The implications for a treatment approach

AMBIT, therefore, is about not just the *what,* but the *how* of learning. The adolescent predicament is that mentalizing is *especially* challenged in this developmental phase. The detection systems for social ‘non-contingency’ that trigger fight-flight arousal (exposure to one’s father dancing at a party, for instance) reach maturity by the beginning of adolescence, but this is well ahead of the prefrontal cognitive-regulatory systems (Nelson et al, 2005) that support explicit, controlled mentalizing (which is more forgiving of the perceived *faux pas,* or threat).

AMBIT is constructed to create a social situation where the first aim of the intervention is largely about opening the young person’s mind via establishing a relationship that manifests contingencies to the person’s subjective experience so (s)he can trust the social world once again by changing expectations about the trustworthiness, or value of, human communication. If organized attachment is the marker of trustworthiness, the establishment of an attachment relationship with the client is critical to creating an opportunity and space for change. The “sensitivity” of the therapist is paramount – not because of the specific content of the mind that (s)he is able to depict with clarity, but rather, because this sensitivity generates trust (a partially secure attachment) which opens the hard-to-reach person up to be influenced by their therapist. If epistemic trust is established then this change in appraising the source of information may generalize to their wider social network.

Thus, AMBIT-influenced work may strive to change a young person’s attitude to social communication, but it does not assume that it is what is “taught” in therapy that brings change in behavior, emotions, and cognitions. What truly helps (“teaches”) is the social environment in which the evolutionary capacity for learning from others is rekindled through the creation of a new attachment bond. AMBIT-influenced working achieves its goal as much through the *way* it offers help as through the *content* of that help.

This foregrounds the structure of service delivery. If creating a sound attachment relationship is critical to the young person’s progress, obviously the way the helping team reaches out to the young person will be critical. Just as the precursors of attachment security are to be found in the formal qualities of the communication with parent/caregiver rather than the content of the communication (Belsky & Fearon, 2008), so it is the manner in which the team works to engage the hard-to-reach youth that matters. A willingness to work in nonstandard outreach settings defined by the young person as safe; to balance structured planned work with flexible, contingent care; to deploy the “non-expert” inquisitive stance; and to respond to crisis calls and demands from the young person not just as “teleological tasks” but as indicators of budding attachment, are all examples of this.

# Section 3. Applying attachment theory to team functioning

## As a mentalization-based approach we see AMBIT as one permeated by understandings and applications derived from attachment studies.

## 3.1 The team around the worker

In order to privilege the keyworker–client relationship, AMBIT promotes the “team around the worker” as a complement to more conventional emphasis on the need for a “team around the child” (Figure 2), and as a practical example of what we refer to as the “well-connected team”. AMBIT emphasizes the inevitability of professional anxiety in this kind of work, resisting strongly any influence that would promote shame in response to such a reaction. Instead, it promotes reflective understanding of the impact of such a loss of mentalizing capacity in the worker, and practical measures to reduce its likelihood or impact.

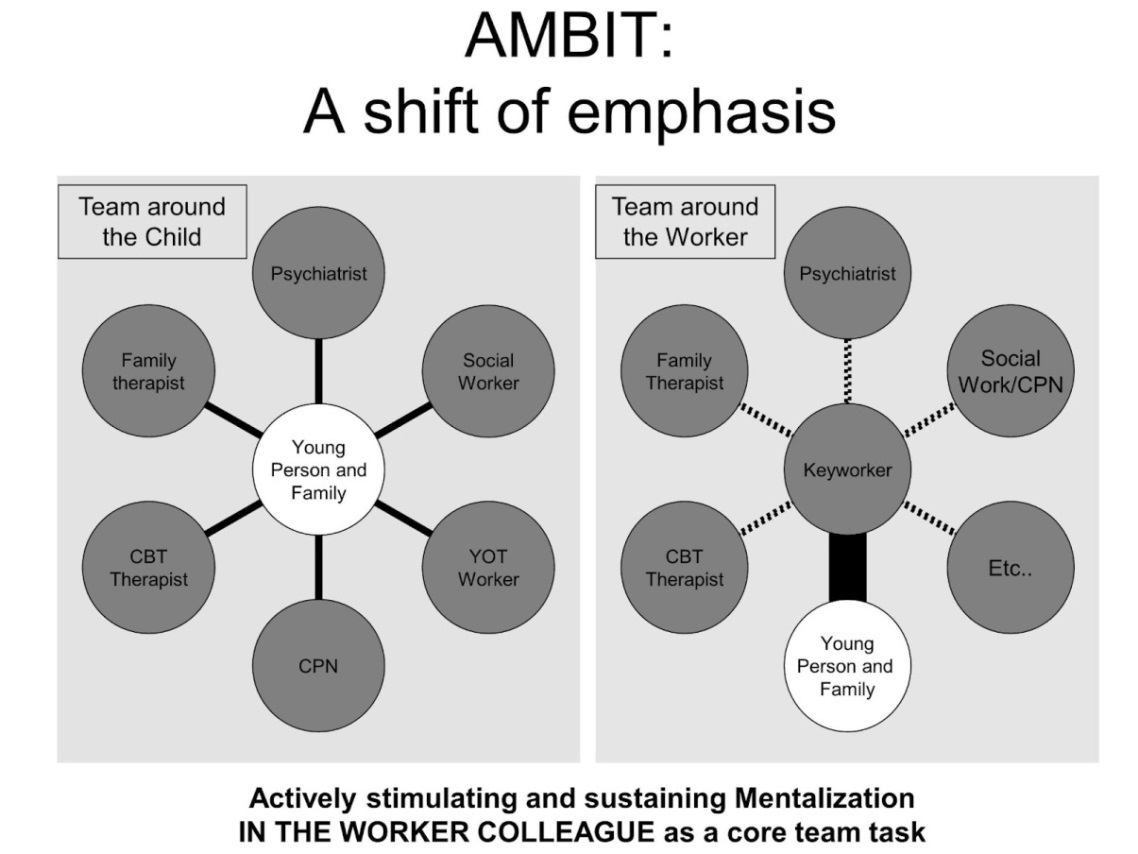


Figure 2.

AMBIT proposes a team approach that privileges (initially at least) a single worker relationship for the service user, although that worker makes regular and explicit use of their own “back-up” from named colleagues (and, in so doing, *models appropriate help-seeking*).

“Back-up” refers to supervisory/consultatory support from colleagues whilst basic “barefoot” interventions are delivered in the field. Attention to the attachment needs and mentalizing capacity of one’s colleagues is construed in the “well-connected team” as being *as important* a part of practiceaspromoting the same in the young person and family. To this end, frequent, disciplined case discussions, including “real-time” contact with workers in the field via mobile phone, are strongly promoted. The worker who does not use frequent peer consultation would be a cause for concern.

## 3.2 “Thinking Together”

These conversations are conducted in explicit, disciplined ways. First, they are “marked out” by referring to them as “thinking together” conversations; this arbitrary label *ostensively* (Gergely and Csibra, 2005) alerts team members about the value of what is to follow. Using an agreed name is a specific social discipline or ritual, as it were, illustrating how AMBIT encourages development of a local team culture. Colleagues may thus reasonably assume shared understandings of meaning and intentions around critical interactions, such as these peer-to-peer consultations.

“Thinking together” promotes four key steps that offer a framework to support and encourage the delivery of help by a “peer consultant” that is sensitively contingent with the needs of the field worker. These steps have been described in detail elsewhere (Bevington and Fuggle, 2012) but are summarized as **Marking the task**, **Stating the case**, **Mentalizing the moment**, and **Return to purpose**. In our experience many clinical case discussions begin with stating the case, and end with the return to purpose, but marking of the task and attempts to mentalize (especially to mentalize one’s professional colleague) are missed out. Crucially, in ‘mentalizing the moment’, explicit attempts to mentalize are applied *first to the worker* (what is *their* predicament, and how might this affect *their* capacity to mentalize; helping them, quite literally, to ‘come to their senses’) and only *then* to the current clinical predicament (the service user and other protagonists). An analogy is drawn between this process and the instructions given in preflight safety talks: passengers are warned that in the event of sudden decompression supplementary oxygen (cf. mentalization) is supplied from overhead masks (cf. the peer consultant). Parents in charge of young children are advised *first to attend to their own mask,* *before* attempting to fit their child's oxygen supply.

**Thinking together**

John’s keyworker hears about a minor episode of self-cutting, in response to news that his mother has restarted a relationship with a heavy drug user who was violent towards her in the past. Having established basic safety in the here and now John’s keyworker says “John, you’re telling me important things. It seems that quite properly you’re worried for your Mum’s safety. We’ve had some thoughts together about how to keep things safe. You remember I talked about how we work in my team? We use each other as back-up, especially to help us *think clearly* when the temperature rises, because it is easy to miss stuff in these situations – I’d like to think with one of my colleagues, Liz, right now if you don’t mind, to check our plan makes sense. If you are OK with this I’ll call her and put the speakerphone on, so you can listen to our conversation for about 5 minutes.”

John’s keyworker calls Liz and they agree to *think together* with John listening to the conversation [this is not always appropriate, but models powerfully to the young person the worker’s own use of relationships and attachments].

The task is marked as getting outside opinion about the current safety plan – does it seem safe and inclusive enough?

John listens as his keyworker describes briefly their collective take on his dilemma (“stating the case”), and then hears Liz validate the worker’s emotional context “*Well, first of all, I can see that there is a lot at stake, and you want to get this right – not over-react, but not under-react either – is that something like how it feels for you?*” Mentalizing aloud, John’s keyworker and Liz draw out the formal safeguarding policy constraints within which they must work, but also the risks of precipitating action that John’s mother may see as intrusive or unnecessary. In returning to the purpose (their original task) they agree that existing plans are robust, but Liz also highlights the fact that in thinking about the mother’s and John’s safety in relation to her new partner there may have been some minimizing of John’s exacerbated self-injury. Further safety planning for this contingency is agreed.

# 4. Applying attachment in team training

Clearly teams are composed of multiple separate minds, but we think there is value in a metaphorical understanding of teams as existing in a “*strange situation*” – their clinical milieu – which calls forth both anxiety but also, given sufficient security, exploration.

**4.1** **Exploration and security**

In order to promote a sense of connection with their own practice, and to mitigate the potential for training to be experienced as a threat to the professional self, AMBIT explicitly adopts a respectful and curious stance towards the existing practice of those teams engaging in training. Seeking to impose (in a teleological manner) an entirely alien set of protocols risks being experienced as offering non-contingent help, thereby triggering anxiety and attachment behaviours in the team, and lessening the likelihood of change being embraced. Instead, although comprising a robustly manualized approach, AMBIT seeks to support teams working in the “strange situation” of clinical practice to explore, develop, and define *their own* “treatment as usual” in systematic ways.

AMBIT seeks to provide security not only by stressing the evidence base supporting its own theoretical foundations, but also by offering authentically contingent support connecting to the specific dilemmas that the team encounters; as a deployment-focused approach (Weisz and Simpson-Gray, 2008) AMBIT’s capacity to do this is increasingly in relation to experience accrued from working with deployments in multiple other teams which is “digested” in the ever-developing wiki-manual.

The point of these efforts to provide security are to promote authentic local exploration of a manualized principled stance and empirically supported general practice elements - that local teams will need to blend and integrate to create contingency with the demands of their own local culture and service ecology. A consistent theme in systematically gathered feedback from past trainees has been that AMBIT training shows “Respect for Local Practice and Expertise”.

## 4.2 Exploration and outcomes

As teams do explore (mentalize) their practice, AMBIT embraces the necessity for clear outcomes frameworks, emphasising the development and exercise of genuine curiosity in a team about what happens with clients; who they work best with; what fails to work well; how that may be improved. Measuring performance can activate themes of threat-by-ranking (“*Perhaps our outcomes will be worse than they should be*”) as easily as themes of security-through-proof (“*This will provide a method for proving that what we do works*”). Our understanding about outcomes frameworks, shared with others (Kaplan and Porter, 2011; Porter and Teisberg, 2006), is that it should not become fixed at either end of this dichotomy.

A primary focus for the AMBIT project is now the development of outcomes at a team and organizational level; *post-training outcomes*, as it were. A pre- and post-training questionnaire has been developed, probing workers’ attitudes, experience of the work, and their use of AMBIT concepts and tools, and is now routinely issued. Publications on this subject are in preparation.

Another measure of engagement with AMBIT is local teams’ use of their own local version of the wiki-based treatment manual, as a record of ongoing *local* learning. The invitation for teams effectively to “blog” about their ongoing learning is one of the most radical aspects of AMBIT, and it is to this we now turn.

## 4.3 Exploration and manualization

Novel open source technology[[1]](#footnote-1) supports the freely available open-source AMBIT manuals (follow links from the signposting site [www.tiddlymanuals.com](http://www.tiddlymanuals.com)). A unique web-based treatment manual is accessible via smartphones, tablets or PCs, linking and integrating material drawn from multiple sources, including rich multimedia content (videos of practitioners role-playing techniques, lectures, etc) to make it an attractive training and supervisory resource, as well as a reference “text”.

“Wiki-manualization” refers to the fact that users in local teams should make edits to their own local versions - an explicit attempt to mediate the necessary tension between the demands for “*Respect for evidence*” and “*Respect for local practice and expertise*” (both core features of the AMBIT stance referred to above.)

Thus, an incrementally improving, evidence-based/oriented core practice guide is being adapted in multiple ways by multiple local services. Their local versions each include this “core” but allow them to “write in the margins”, so to speak, or to perform more major rewrites, as they record details of how they implement this material or adapt it in answering the question “*what works* ***here****, for* ***these*** *young people?*”. This should be what is asked of all therapies that demonstrate effectiveness in randomized controlled trials (Cartwright and Munro, 2010).

Three features of the AMBIT approach to web-based treatment manualization are critical to the model advocated in this paper and link the approach to attachment theory:

**4.3.1 Multiple differentiated versions on a common core**

First, the AMBIT manual enables and promotes multiple versions (one for each team), all drawing upon common content from the basic “core manual”, but empowering local adaptation through the concerted action of the team. We hypothesize that this process of *co-production* of a local manual, blending externally-sourced Evidence-Based Practice with locally-sourced ‘practice-based evidence’, enhances the coordination, collaboration and enculturation of a team. The scientific grounding and research base are protected through constraints on modifications that ensure a “locally-attuned” manual retains an explicit relationship to the core AMBIT model upon which it is based. Some workers refer to AMBIT manuals as “practice scrapbooks”, emphasising their nature as “works in progress” rather than laying claim to fixed expertise (which is antithetical to mentalizing.)

**4.3.2 Systematic collection and sharing of best practice**

Second, a feedback loop is designed into this multi-authored, layered document. Local innovations that demonstrate benefit (through clinical outcomes measures, or through evidence of the widespread “cloning” of such innovations into the local versions of *other* teams’ manuals) can be copied down into the core platform, which then automatically disseminates these across all the local versions. This is a practical implementation of the “deployment-focused” model of intervention development described above, and relates also to the function the manual has of promoting and supporting a Community of Practice.

**4.3.3 A Community of Practice**

Anthropological examination of apprenticeships (Lave and Wenger,1991, and Wenger, 1998) showed that very substantial proportions of the “syllabus” are held and taught not by remote experts but by other apprentices (who, we maintain, are best placed to gain epistemic trust through better grasping the dilemmas of the learner) in ‘Communities of Practice’. These are defined as groups sharing a *domain of interest*(in this instance, “What works for complex, troubled, excluded youth?”), a *community* (a mutually supportive membership with shared competencies and commitment to the domain), and a shared *practice* (with the implication of a set of resources, tools, skills, and techniques that might usefully be pooled, shared and developed).

The web in general (and we believe the AMBIT manual in particular) offers unique opportunities for the practical development of these emerging ideas about knowledge management (Cox, 2005). Just as the local team works to develop and utilize attachment security between its members, so the relationship of teams to their web-based treatment manuals works to emphasize attachments, affiliations, and support from further afield. Thus AMBIT – particularly as it is supported via its web-based, user-editable wiki manuals - includes a “social networking” element”; enabling geographically distant teams to “look over each other’s shoulders”, sharing methods, techniques and protocols that have proven value in specific local settings. In the longer term, incremental and iterative improvements in the content of the manual from a widening pool of expertise and experience, may, we hope, lead to it becoming an increasingly trusted source of information.

### **5. Progress and Conclusions**

To date, the manualizing aspect of AMBIT has engaged some teams more than others. Interviews and feedback suggests this is partly due to technological constraints, partly to anxieties about such a bold move towards explicitly transparent practice, and partly to the struggle between such “meta-level” practice and the demands of day-to-day clinical work.

As increasing numbers of teams are engaging in this aspect of AMBIT practice we recognize that more formal structures for adjudicating about inclusions or edits to the core are required. Some examples of local manualizing are given below:

**Local manualizing**

* The AMASS team in Islington recognized distinct changes in referral patterns; increasingly frequently there were concerns about Childhood Sexual Exploitation. They have added local pages on this subject.
* The CASUS team has added extensively to material on substance use disorder, recording its own care pathways and care plans.
* The MAC-UK team works with young people who may be have access to firearms. Young people helped them to draw up guidance for how staff should respond in the event of them learning that a firearm is on site.
* LOTHIAN CAMHS have added material about working with early onset psychosis.

AMBIT is an innovative emerging model of practice, powerfully influenced by attachment theory and related practices, avoiding rigid un-modulated command structures in favor of local learning. It needs more formal evaluation in the coming years, perhaps as a version of TAU (treatment as usual) in randomized studies of other largescale manualized practices.

# References

Asen, E., & Bevington, D. (2007). Barefoot practitioners: a proposal for a manualized, home-based Adolescent in Crisis Intervention Project. In G. Baruch, P. Fonagy, & D. Robins (Eds.), *Reaching the hard to reach: Evidence-based funding priorities for intervention and research* (pp. 3–34). Chichester, UK: Wiley.

Bateman, A. W., & Fonagy, P. (Eds.). (2012). *Mentalizing in mental health practice*. Washington, DC: American Psychiatric Press.

Belsky, J., & Fearon, P. R. M. (2008). Precursors of attachment security. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment theory and research* (2nd ed., pp. 295–316). New York, NY: Guilford Press.

**Bevington, D., Fuggle, P., Fonagy, P., Asen, E., & Target M, (2012). Adolescent Mentalization-Based Integrative Therapy (AMBIT): A new integrated approach to working with the most hard to reach adolescents with severe complex mental health needs. *Child and Adolescent Mental Health*. Advance online publication. doi: 10.1111/j.1475-3588.2012.00666.x**

Bevington, D., & Fuggle, P. (2012) Supporting and enhancing mentalization in community outreach teams working with socially excluded youth: the AMBIT approach. In N. Midgley & I. Vrouva (Eds.), *Minding the child: Mentalization-based interventions with children, young people and their families* (pp. 163–186). Hove, UK: Routledge.

Bretherton, K., & Munholland, K. A. (2008). Internal working models in attachment relationships: A construct revisited. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research and clinical applications* (2nd ed.). New York, NY: Guilford Press.

Cartwright, N., & Munro, E. (2010). The limitations of randomized controlled trials in predicting effectiveness. *Journal of Evaluation in Clinical Practice, 16*, 260–266.

Chorpita, B. F., Daleiden, E. L., & Weisz, J. R. (2005). Identifying and selecting the common elements of evidence based interventions: a distillation and matching model. *Mental Health Services Research,* 7, 5–20.

Cox, A. (2005). What are communities of practice? A comparative review of four seminal works. *Journal of Information Science, 31*, 527–540.

Csibra, G., & Gergely, G. (2011). Natural pedagogy as evolutionary adaptation. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences, 366*, 1149–1157.

Dozier, M. K., Stowall-McColough, C., & Albus, K. E. (2008). Attachment and psychopathology in adulthood. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of Attachment Theory and Research* (2nd ed., pp. 718–744). New York, NY: Guilford Press.

Dozier, M., Lindhiem, O., Lewis, E., Bick, J., Bernard, K., & Peloso, E. (2009). Effects of a foster parent training program on young children's attachment behaviors: Preliminary evidence from a randomized clinical trial. *Child and Adolescent Social Work Journal, 26*, 321–332.

Feeney, J. A. (2008). Adult romantic attachment: Developments in the study of couple relationships. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of Attachment Theory and Research* (2nd ed., pp. 456–481). New York, NY: Guilford Press.

Fonagy, P. (1998). An attachment theory approach to treatment of the difficult patient. *Bulletin of the Menninger Clinic, 62*, 147–169.

Fonagy, P., & Bateman, A. (2006a). Progress in the treatment of borderline personality disorder. *British Journal of Psychiatry, 188*, 1–3.

Fonagy, P., & Bateman, A. W. (2006b). Mechanisms of change in mentalization-based treatment of BPD. *Journal of Clinical Psychology, 62*, 411–430.

Fonagy, P., & Luyten, P. (2009). A developmental, mentalization-based approach to the understanding and treatment of borderline personality disorder. *Development and Psychopathology, 21*, 1355–1381.

Fonagy, P., Gergely, G., Jurist, E., & Target, M. (2002). Affect regulation, mentalization and the development of the self. New York, NY: Other Press.

Fonagy, P., Luyten, P., & Strathearn, L. (2011). Borderline personality disorder, mentalization, and the neurobiology of attachment. *Infant Mental Health Journal, 32*, 47–69.

Fonagy, P., Steele, H.,Moran, G.,Steele, M.,and Higgitt, A (1991) The capacity for understanding mental states: the reflective self in parent and child and its significance for security of attachment. *Infant Mental Health Journal*, 13, 200-217.

Fonagy, P., & Target, M. (2002). Early intervention and the development of self-regulation. *Psychoanalytic Inquiry, 22*, 307–335.

Gergely, G. (2007). The social construction of the subjective self: The role of affect-mirroring, markedness, and ostensive communication in self development. In L. Mayes, P. Fonagy, & M. Target (Eds.), *Developmental science and psychoanalysis* (pp. 45–82). London, UK: Karnac Books.

Gergely, G., & Csibra, G. (2005). The social construction of the cultural mind: Imitative learning as a mechanism of human pedagogy. *Interaction Studies, 6*, 463–481.

Gergely, G., & Watson, J. (1996). The social biofeedback model of parental affect-mirroring: The development of emotional self-awareness and self-control in infancy. *International Journal of Psycho-Analysis, 77*, 1181–1212.

Goodyer , Tasncheva S, Byford S, Dubicka B, Hill J, Raphael K, Reynolds S, Roberts C, Senior R, Suckling , Wilkinson P, Target M, Fonagy P: Improving Mood with Psychoanalytic and Cognitive Therapies (IMPACT): a pragmatic effectiveness superiority trial to investigate whether specialised psychological treatment reduces the risk for relapse in adolescents with moderate to severe unipolar depression. Trials 2011, 12:175

Grossmann, K., Grossmann, K. E., Kindler, H., & Zimmerman, P. (2008). A wider view of attachment and exploration: The influence of mothers and fathers on the development of psychological security from infancy to young adulthood. In J. Cassidy & P. R. Shaver (Eds.), Handbook of attachment theory and research (2nd ed., pp. 857–879). New York, NY: Guilford Press.

Higgitt, A., & Fonagy, P. (1992). The psychotherapeutic treatment of borderline and narcissistic personality disorder. *British Journal of Psychiatry, 161*, 23–43.

Kaplan, R. S., & Porter, M. E. (2011). How to solve the cost crisis in health care. *Harvard Business Review, 89*, 46–52, 54, 56–61 passim.

Lave, J., &Wenger, E. (1991). Situated learning: Legitimate peripheral participation. Cambridge, UK: Cambridge University Press.

Nelson et al (2005) Development of the Social Information Processing Network   
 Psychological Medicine, 35, 163-174

Porter, M. E., & Teisberg, E. O. (2006). Redefining health care: creating value-based competition on results. Boston, MA: Harvard Business School Press.

Rosen, G. M., & Davison, G. C. (2003). Psychology should list empirically supported principles of change (ESPs) and not credential trademarked therapies or other treatment packages. *Behavior Modification, 27*, 300–312.

Ryan, R. M. (2005). The developmental line of autonomy in the etiology, dynamics, and treatment of borderline personality disorders. *Development and Psychopathology, 17*, 987–1006.

Senge, P. (2006, 2nd Edition) The Fifth Discipline: The art and practice of the learning organization, Random HouseSlade, A. (2008). The implications of attachment theory and research for adult psychotherapy: Research and clinical perspectives. In J. Cassidy & P. R. Shaver (Eds.), Handbook of attachment theory and research (2nd ed., pp. 762–782). New York, NY: Guilford Press.

Sharp, C, Pane, H, Ha, C, Venta, A, Patel, AB, Sturek, J, Fonagy, P. (2011) Theory of Mind and Emotion Regulation Difficulties in Adolescents With Borderline Traits. Journal of the American Academy of Child & Adolescent Psychiatry, Volume 50, Issue 6 , Pages 563-573.e1

Slade, A., Grienenberger, J., Bernbach, E., Levy, D., & Locker, A. (2005). Maternal reflective functioning, attachment, and the transmission gap: A preliminary study. *Attachment and Human Development, 7*, 283–298.

Stronach, E. P., Toth, S. L., Rogosch, F., Oshri, A., Manly, J. T., & Cicchetti, D. (2011). Child maltreatment, attachment security, and internal representations of mother and mother-child relationships. *Child Maltreatment, 16*, 137–145.

Thompson, R. A. (2008). Early attachment and later development: Familiar questions, new answers. In J. Cassidy & P. R. Shaver (Eds.), Handbook of attachment theory and research (2nd ed., pp. 348–365). New York, NY: Guilford Press.

Twemlow, S. W., Fonagy, P., Sacco, F. C., Gies, M. L., Evans, R., & Ewbank, R. (2001). Creating a peaceful school learning environment: A controlled study of an elementary school intervention to reduce violence. *American Journal of Psychiatry, 158*, 808–810.

Veale, A. (2011). Fostering resilience in adolescents. In D. Skuse, H. Bruce, L. Dowdney & D. Mrazek (Eds.), *Child psychology and psychiatry: Frameworks for practice* (2nd ed., pp. 78­–84). Chichester, UK: John Wiley & Sons.

Weisz, J. R. (2004). *Psychotherapy for children and adolescents: Evidence-based treatments and case examples*. Cambridge, UK: Cambridge University Press.

Weisz, J. R., & Simpson Gray, J. (2008). Evidence-based psychotherapy for children and adolescents: Data from the present and a model for the future. *Child and Adolescent Mental Health, 13*, 54–65.

Wenger, E. (1998). Communities of practice: Learning, meaning, and identity. Cambridge, UK: Cambridge University Press.

Figure 1. The AMBIT stance

Figure 2. The Team around the Worker

1. See [www.tiddlywiki.com](http://www.tiddlywiki.com) and <http://tiddlyspace.com> [↑](#footnote-ref-1)