

**Abstract:**

Behavioural experiments are an important component of cognitive behavioural therapy. However, there exists little up-to-date guidance on how to conduct these in people with a diagnosis of bipolar disorder. This paper provides recommendations on how to conduct behavioural experiments in people with bipolar disorder. The aim is to upskill and empower clinicians to conduct behavioural experiments. The paper combines the expertise of senior clinicians working in the United Kingdom. The article starts by providing general advice on conducting behavioural experiments in this population. It then offers specific examples of behavioural experiments targeting cognitions around the uncontrollability and danger of affective states, and related behavioural strategies, which have been implicated in the maintenance of bipolar mood swings. The article finishes by providing examples of behavioural experiments for non-mood related difficulties that commonly occur with bipolar experiences including: perfectionistic thinking, need for approval, and intrusive memories. Behavioural experiments offer a useful therapeutic technique for instigating cognitive and behavioural change in bipolar disorder. Conducted sensitively and collaboratively, in line with peoples' recovery focused goals, behavioural experiments can be used to overcome mood and non-mood related difficulties.

**Key words:** Bipolar disorder, mood swings, behavioural experiments, cognitive behavioural therapy.

**Running header:** Behavioural experiments in bipolar disorder.

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**Practitioner points:**

- Behavioural experiments are an important component of cognitive behavioural therapy for bipolar disorder.
- This article provides guidance on planning, conducting and debriefing behavioural experiments in this population.
- It also contains examples of specific experiments for difficulties that are common in people with a diagnosis of bipolar disorder.

## 1. Introduction

Behavioural experiments are an essential component of cognitive behavioural therapy (CBT; Bennett-Levy et al., 2004). In a behavioural experiment, the therapist and the client collaboratively test out key thoughts and beliefs that they have previously identified as playing a causal role in maintaining psychological distress in order to confirm or disconfirm their accuracy (Beck et al., 1979). They start by listing key predictions around possible outcomes before testing these out together and evaluating the result (Bennett-Levy, 2003). Behavioural experiments can take place in the therapy room or in community settings, where they try to replicate and test meaningful real world scenarios. The aim is to facilitate cognitive shifts that may help reduce distress and disability across mental health difficulties through action and experiential learning. This paper considers the use of behavioural experiments in people with a diagnosis of bipolar disorder.

Bipolar disorder is characterised by extreme depressive and manic states that can cause significant distress and disability. The National Institute of Clinical Excellence (NICE) recommends that clinicians use high-intensity psychological interventions, such as cognitive behavioural therapy (CBT), to treat bipolar disorder. A recent meta-analysis showed that psychological interventions reduce the likelihood of relapse and hospitalisation in this population (Oud et al., 2017). However, the complex and multifaceted nature of the difficulties arising in bipolar disorder, pose new challenges for the delivery of therapeutic strategies, such as behavioural experiments. For example, high comorbidity (Grant et al., 2005), ambivalence about treatment (Dell'Osso et al., 2002), and perfectionistic beliefs (Scott et al., 2000) can all complicate the process of therapy. Although guidance exists on CBT for bipolar disorder (Dent et al., 2004; Jones et al., 2005; Schwannauer, 2004) there is still comparatively little advice on designing and conducting behavioural experiments that can address underlying processes described in the more recent integrated cognitive (Mansell et al., 2007) and recovery focused (Jones et al., 2015) approaches.

The current article provides advice for psychological therapists on how to design and undertake behavioural experiments when working with people diagnosed with bipolar disorder. The contents represent the knowledge and experiences of senior clinical psychologists working in the United Kingdom, shaped by service-user feedback. It is by no means an exhaustive set of recommendations and we encourage clinicians to adapt and build on it in light of each individual clients' formulation, priorities and goals. Behavioural experiments are fundamental to the success of CBT and as such it is our hope that this guide will prompt and facilitate greater use of behavioural experiments in bipolar disorder and increase therapists' confidence when using this important therapeutic technique.

## 2. General guidance

The following section provides general advice for designing and undertaking behavioural experiments in people with bipolar disorder. Although some of the recommendations are specific to this patient group, others are applicable to behavioural experiments regardless of the disorder. Indeed, collaborative, patient-centred and compassionate care are central to CBT. We advise readers to explore other core texts on behavioural experiments from which this article necessarily borrows (Bennett-Levy et al., 2004; Dent et al., 2004). The aim of this section is to raise awareness of good practice, before discussing ideas for specific behavioural experiments in the subsequent section.

### ***2.1. Setting up the behavioural experiment***

Behavioural experiments should always be linked to the client's problem list, goals and formulation. In bipolar disorder, cognitions play a central role in driving affect and behavioural responses. Behavioural experiments should therefore experientially test the key cognitions outlined in the psychological formulation. The integrative model of mood swings (Mansell et al., 2007) is appropriate for those clients that wish to work on the symptoms associated with their bipolar disorder diagnosis. However, the direction of therapy must be determined by the client's problems, priorities and preferences. At times, this might mean working on comorbid symptoms, such as anxiety disorders, alcohol problems, psychosis and post-traumatic stress disorder (PTSD). It might also involve focusing on interpersonal or functional goals important to personal recovery (e.g. social activities, employment), where a 'hot cognition' is limiting behaviour (Fowler et al., 2019). The therapist should select the most appropriate formulation and associated behavioural experiments, based on their knowledge of key cognitive models of mental health.

Therapists should introduce the behavioural experiment as a form of curious hypothesis testing and design and plan them collaboratively with the client. This may involve comparing and contrasting an unhelpful cognition with a less distressing alternative (hypothesis A Vs. hypothesis B), but also conducting behavioural work with the explicit aim of generating new hypotheses that were previously inaccessible to the individual (Rouf et al., 2004). At times, opportunistic natural behavioural experiments based on activities that the client is already planning (e.g. a social event) can be particularly effective. When setting up the experiment, the therapist should carefully link particular outcomes to specific hypotheses in order to avoid misinterpretation of the results. The client should have a good appreciation of how the experiment fits with their psychological formulation and the mechanisms maintaining their difficulties over time.

Behavioural experiments typically occur after a short period of engagement, goal setting, formulation and initial cognitive work, but can take place at any point during therapy. At times, clients may disclose that the possibility of a behavioural experiment is too daunting or overwhelming. We have sometimes found the use of a graded stepped approach to behavioural experiments useful in clients with bipolar disorder. Here, the client builds up to experiments that are more difficult by initially completing those that are less challenging (Figure 1), where difficulty is determined through the environment, support or cognition tested. Should clients cancel or not attend, it is useful to revisit the acceptability of the plans and take a step back to less demanding tasks or conduct further preparatory work as necessary.

[Enter Figure 1 around here]

Clinicians should carefully create a detailed plan the details of the behavioural experiment with the client, including consideration of the time, location, and stage of therapy. Behavioural experiments are excellent opportunities for positive risk taking (Department of Health, 2007) that can be beneficial to the clients' recovery, but the therapist should always have an understanding of presenting risk issues and put a plan in place for managing these. As part of their briefing, therapists should also assess barriers to completion and possible problems that might arise. For example, certain exercises may increase the likelihood of activated or deactivated mood during the session (e.g. in response to a location or outcome), which should be acknowledged and explored. This can facilitate a clear and collaborative course of action should things go wrong and mitigate against distressing emotions in the session. We have sometimes found it helpful to introduce a relaxation, breathing or imagery technique to help the client to reduce their agitation *in vivo*. Forward planning and subsequent management of an activated mood state could help to challenge unhelpful appraisals around it being dangerous or uncontrollable. However, it is important that therapists are not too risk averse and do not avoid behavioural work due to fear of triggering changes in mood, as this could risk reinforcing client's often catastrophic predictions about the consequences of mood fluctuation.

It is useful if behavioural experiments involve multiple active participants to increase avenues of support and chances of success. One option is for the therapist to carry out the experiment alongside the client. This might involve the therapist venturing out into the community with them or completing the same exercises as between session tasks. For example, an experiment

exploring the impact of caffeine on racing thoughts could involve both the client and therapist abstaining from coffee for a week. It is also sometimes appropriate for other members of the mental health team (e.g. nurses, social workers, occupational therapists), family members (e.g. partners, parents, siblings), or educational support officers (e.g. teachers, counsellors) to operate as co-therapists or participants in the experiment. This may involve them testing out hypotheses alongside the client or supporting them to engage in the work (e.g. jointly visiting a location to explore whether behavioural activation can improve low mood). Third parties can then remind the client of take home messages from the behavioural experiments acting as a living therapy blueprint. An additional overlooked part of the system is the operational managers of mental health services. In our experience, it is helpful if senior managers are socialised to the benefits of behavioural work and create operational and local policies that allows therapists the time, resources and the flexibility to complete them.

## ***2.2. Conducting the behavioural experiment***

As much as possible, the client and therapist should conduct the behavioural experiment in line with a previously collaboratively devised plan, articulating a clear plan for testing an extreme cognition that is unrealistic and amenable to change. This ensures that the experiment will be acceptable to the client and appropriate to the stage of therapy, whilst increasing the chances of a successful outcome. Of course, behavioural work will sometimes introduce unexpected events. At such times, the therapist may need to improvise, whilst remaining collaborative and sensitive to the needs of the client. For example, if the selected location for the behavioural experiment is unavailable, devising an alternative plan may be necessary, whilst making sure that this is in line with the client's wishes and the requirements of the experiment. Therapists must not spring challenging situations on the client without warning or consent as this would be both unethical and unhelpful.

Therapists should be attentive to people with bipolar disorder experiencing strong emotions during behavioural experiments, including anxiety, elation, or sadness. Consequently, the therapist should be empathic, compassionate and flexible throughout; they should encourage and praise brave behaviour, but also offer reassurance and support where needed. During the experiment, the therapist should check what the client is feeling and what they are thinking, and regularly revisit the aims and hypotheses. Behavioural experiments provide opportunities for observing clients in real world situations and assessing their difficulties as they occur. This is particularly true of bipolar disorder where many of the presenting difficulties (e.g. affective states, mood related cognitions, regulatory behaviours) are time-limited and difficult to recall retrospectively. For example, an

activated client may experience momentary images of catastrophic outcomes, which could contribute to subsequent anxiety and low mood. This information might have otherwise been missed or lost if it not for *real-time* assessment.

### **2.3. After the behavioural experiment**

The therapist should conduct a thorough debriefing to check how the client understands and interprets the results of the behavioural experiment, and to explore any points of learning. Sometimes it is helpful for the therapist to systematically explore whether the evidence confirmed or rejected each of the client's previous hypotheses. These findings then inform the psychological formulation and their understanding of the psychological mechanisms maintaining the person's difficulties. Clinicians should be aware that the immediate interpretation of an experiment may differ from one that emerges; as the client's mood changes so might their appraisals of past events or successes (e.g. negative recall bias; Ben-Zeev & Young, 2010). Therefore, client and therapist should revisit take home messages and learning in subsequent sessions, setting reminders and providing written summaries where necessary. Unstable or affect-contingent appraisals in themselves can be an opportunity for reflection and learning on the impact of mood on appraisals. This can then lead to broader messages around the possibility of change to build hope and optimism for the future.

The debriefing of a behavioural experiment should investigate what went well and less well, and any encountered problems. This helps to identify barriers or problems that might arise in future sessions and provides opportunities for mitigating their impact. It also ensures that future behavioural work meets the client's needs and does not lead to a therapeutic rupture. A client with bipolar disorder who experiences racing or disorganised thoughts during a behavioural experiment might have been unable to process new information, limiting its success. Awareness of this could help the therapist to put strategies in place in order to increase clarity of thought in subsequent sessions (Palmier-Claus et al., 2017).

## **3. Specific behavioural experiments for bipolar disorder**

The following section outlines specific behavioural experiments for specific difficulties associated with bipolar disorder. As stated earlier, it is important that therapists remain person-centred in their selection of goals for therapy; many clients will have other idiosyncratic goals that are personally meaningful to them not mentioned in this article and it is often appropriate for these to be the focus of therapy.

### **3.1. Mood related difficulties.**

Theoretical models of mood swings propose that multiple and contradictory interpretations of both low and high internal states, in combination with associated behavioural, physiological and environmental responses, contribute to the maintenance of mood swings over time (Jones et al., 2005; Mansell et al., 2007). Key appraisals include catastrophic appraisals of mood states (e.g. ‘unless I am active all of the time, I will end up a failure’), socio evaluative concerns (e.g. ‘if I experience high mood around others, they will dislike me’), beliefs about the controllability of mood states (e.g. ‘when I feel down there is nothing I can do about it’), beliefs about the uncontrollability of behavioural and cognitive responses (e.g. ‘when I am high, I have no control of my behaviour’) and beliefs about the helpfulness of certain behavioural response (e.g. “I must isolate myself to stop my mood deteriorating’). Such cognitions are often targeted in CBT and amenable to testing within behavioural experiments.

#### **3.1.1. Experiments for catastrophic appraisals of mood**

These experiments follow the rationale that extreme appraisals concerning the danger of affective states can further escalate and maintain them and associated distress over time (Mansell et al., 2007). It is important to consider that such beliefs are often an understandable reaction to life events. Indeed, many people will have experienced unwanted consequences of their mood. It is therefore natural for the therapist to be empathic and ensure that any experiments are not invalidating of people’s experiences. However, at times, such appraisals may have become extreme or overgeneralised. For example, the patient may feel that every time they feel sad or happy it is a sign of an impending and inevitable relapse, or other catastrophic outcomes. These concerns may at times be socio-evaluative in nature concerning the perceived social stigma of feeling high or low when around others (e.g. ‘If I become high, I will disgrace myself with everyone’). With careful planning, behavioural experiments can test whether these appraisals are indeed true of all situations.

**Background:** Eric interpreted reactions from other people as signs that they were judging him for his elated mood. He would often leave situations early in order to protect himself from criticism. However, there was also evidence that these thoughts had become overgeneralised; he was applying them to a wide range of situations and would later question their accuracy.

**Key cognition:** ‘When I feel good about myself, other people despise me’

**Behavioural experiment:** An experiment was set up whereby Eric stayed in a social situation and directly observed other peoples’ reactions to his presence. He was asked to continue with the

conversation as normal, rather than removing himself from the situation. Prior work on thought challenging allowed Eric to question his initial interpretation of the situation.

**Hypothesis:** 'Other people will clearly show their disdain for me by insulting me'

**Problems/solutions:** There was limited opportunity to test out the thoughts. Ways of increasing the frequency of social interactions were explored.

**Conclusions:** Eric was able to challenge their thoughts and stay in the situation. By doing so, he realised that other people were less critical of him than he previously thought. He realised that his initial interpretation of situations wasn't always accurate and began engaging in more social activities.

### *3.1.2. Experiments for appraisals around the uncontrollability of mood*

Although nobody is in complete control of their emotions, it is usually possible to influence or gently steer them. At times, people with bipolar disorder appraise their affect as uncontrollable, increasing negative emotions and a sense of hopelessness when they observe these forms of affect. Conversely, helping the person to feel more in control of their mood may help to prevent the escalation and reduce its impact. A relatively straightforward behavioural experiment is to explore the impact of an activity (e.g. going for a walk) on a person's low mood and use the resultant change in affect to challenge uncontrollability appraisals. We have often found it useful to administer visual analogue scales representing key emotions, implicated in the psychological formulation, before and after a behavioural task. This allows for the creation of graphs or charts highlighting changes and showing the impact that behaviour can have on emotions. Versions of this experiment for agitated elation involve rating ones mood prior to and after relaxation techniques that slow the client down in the therapy room. The use of positive mental imagery techniques (Holmes et al., 2017, 2019), such as the broad-minded affective coping strategy (Johnson et al., 2013), are also sometimes helpful for demonstrating patient's ability to influence or moderate their mood.

**Background:** Jane believed that her mood was completely uncontrollable, which made her feel hopeless and overwhelmed when feeling low and high. She no longer saw the point of engaging in activities and hobbies that she had previously enjoyed.

**Key cognition:** 'My mood is uncontrollable'

**Behavioural experiment:** The experiment was planned for a time when Jane was feeling low. Prior to the experiment Jane filled in four analogue scales rating her levels of key emotions in the



moment. She then went for a walk to the local café with her therapist. Returning to the clinic, Jane completed a new set of analogue scales to see whether these had changed.

**Hypothesis:** 'My mood will stay the same; I cannot change it'

**Possible problems/solutions:** Jane wasn't sure whether the experiment would be helpful. Prior to completing it, the therapist explored the advantages and disadvantages of the experiment with Jane to see if it was the right option for her.

**Conclusion:** The pre-post ratings showed an improvement in Jane's mood after this brief activity. The therapist asked who had made this change occur, which made her realise that she could influence her mood in subtle ways. The therapist later provided Jane with a bar chart showing her mood scores as a reminder of the work completed.

### *3.1.3. Experiments for appraisals around the uncontrollability of behaviour:*

At times, people may believe that they have no control over their behaviour (e.g. spending, promiscuity, eating) during certain affective states, which can be reinforced by the person's system (e.g. family members, professionals) or societal messages around mental illness. Preparatory work in this area should explore the advantages and disadvantages of the behaviours to highlight potential drawbacks and facilitate informed choice. Initial behavioural experiments can then focus on imagined exposure to environments where the feared behaviour is likely to occur. These start with the client mentally rehearsing or role-playing refusing to engage in the unwanted behaviour, ideally substituting this with a helpful response that is consistent with their goals and values. During high states, the unwanted behaviour often feels very tempting or compelling in the moment. Therefore, during this imaginal rehearsal exercise, it can be helpful to invite the client to attend to the effects of engaging in the new behaviour upon both immediate and longer term consequences, for example, by "fast-forwarding" to the next day, and exploring the potential positive effects of not having engaged in the risky or problematic behaviour the day before. Later experiments sometimes involve clients testing out the behaviour in the community with or without the therapist present, and with an appropriate plan in place to mitigate any risks. Electronic reminders (e.g. texts, phone images) are sometimes helpful to prompt different ways of responding, particularly in the early stages of introducing behaviours.

**Background:** Graham had previously spent excessive amounts of money during a period of mania placing him in substantial debt. He now avoided shopping, instead asking family members to pick up groceries on his behalf, which made him feel 'useless' and down.

**Key cognition:** 'I have no control over my behaviour when feeling manic'

**Behavioural experiment:** Following a period of imagined exposure, the therapist and Graham agreed to go the supermarket together when he was feeling slightly elevated in mood. Graham agreed to try to limit his spending to under £10.

**Hypothesis:** 'I will spend loads of money'

**Possible problems/solutions:** Graham was worried that he would spend more money than he wanted. He made a shopping list and agreed to stick to it.

**Conclusion:** Graham was able to control his spending limiting himself to the itemised shopping list. This made him feel more in control of his behaviour. He agreed to try the behavioural experiment again by himself the following week.

#### 3.1.4. *Experiments for appraisals around the helpfulness of behavioural responses:*

People with bipolar disorder use a range of strategies to regulate their emotions, which may be maladaptive and maintain affective instability over time (Dodd et al., 2019; Palmier-Claus et al., 2015). Unhelpful emotional regulations strategies might include avoidance, rumination, dampening, drug taking, activity shifting or hypervigilance in response to certain emotions. Within CBT, it is sometimes possible to sensitively and inquisitively test out the impact of coping strategies on people's mood, which prompts future behavioural change. One option is to introduce new or drop old ways of responding to emotions in blocks of time to observe and highlight key differences ("block design experiments"). For example, isolating oneself when feeling down to prevent any further reduction in mood compared to staying out with friends. This experiment can also be particularly effective for cognitive strategies (e.g. attentional focus) to demonstrate the impact of hypervigilance to affective states responsible for accentuating affective responses. Findings should then be linked back to appraisals around the uncontrollability of mood states.

**Background:** Terry had experienced several extreme mood episodes in the past and was fearful of a future relapse. He spent the majority of his time monitoring and worrying about his mood, which was adding to his anxiety. At times, he had cancelled social activities, because of concerns that his mood might change.

**Key cognition:** 'I must look out for signs that my mood is worsening'

**Behavioural experiment:** Terry agreed to conduct a block design experiment, whereby he would investigate the impact of hypervigilance on how he was feeling. Block one involved paying less

attention to his mood instead refocusing on other thoughts and activities. Terry subsequently completed a further three days where he closely monitored his mood.

**Hypothesis:** 'Keeping a careful eye on my mood is vital to feeling better'

**Problems/Solutions:** Terry thought that he might forget to switch strategies. The therapist agreed to call him to offer a reminder.

**Conclusion:** Terry felt better in block 1, when dropping hypervigilance to mood. As a result, he realised that he didn't need to scrutinise his mood quite as closely. Instead, he agreed to 'check-in with himself' for signs of relapse every so often, but not to focus on this constantly.

### ***3.2. Non-mood related difficulties***

#### *3.2.1. Experiments for perfectionistic beliefs*

Self and other-oriented perfectionism has been studied as a trait that cuts across diagnostic categories (Egan, Wade and Shafran, 2011). There is evidence that, on average, people with bipolar disorder may hold beliefs about the importance of achievement and goal-attainment that are more extreme than those held by those without an affective disorder (Fletcher et al., 2013; Jones et al., 2005; Perich et al., 2014). Whilst not identical to other-oriented perfectionism, placing strong emphasis on achievement may promote or reflect a perfectionistic approach. Additionally, self-criticism, considered to be a proxy for self-oriented perfectionism, has been found to predict depressive and hypomanic episodes (Alloy et al., 2009). Thus, perfectionism may be elevated amongst people with bipolar disorder and contribute to symptom elevation.

Clinically, we have observed that extreme mood states can support dichotomous, perfectionistic thinking, with clients expressing beliefs such as "Now that I am not depressed, I have to get everything done, and do it well, to make up for lost time"; "I should be able to get all of this done: I am capable of it when I am high". Behavioural experiments can test the interrelationship between mood swings and perfectionistic beliefs in several ways. Clients can be asked about the development of the belief and the role that their bipolar disorder diagnosis has played. For example, understanding that these beliefs and associated behaviours represent a desire to "make up" for having mood swings may help the client to gain distance from them. This can then lead to less damaging ways of solving or living with the problems that mood swings bring. Behavioural experiments about perfectionism and achievement can be designed with a particular mood state in mind. Some clients may avoid particular activities when low because of fears that they will not be

able to perform to a high enough standard; therapist and client can experiment with gradually introducing some of the avoided activities and widening the bandwidth for what counts as “satisfactory performance” by, for example, looking at disasters averted by tackling a problem, feedback from others, or impact on mood and motivation afterwards. As with other client groups, as well as looking at the broader consequences of naturally occurring imperfect performance, behavioural experiments can involve deliberate error or underperformance on the part of the client. Where clients are likely to find these experiments very challenging, they can follow on from earlier, less threatening activities that generate new evidence.

**Background:** Louise would spend long periods of time criticising herself for under-achieving at work.

**Key cognition:** ‘Everyone will abandon me unless I succeed at everything’

**Behavioural experiment:** After exploring scenarios and visualising these in session, Louise agreed to test this in the first instance by sending an email to a friend with two spelling mistakes in it: Something she would normally fastidiously check.

**Hypothesis:** ‘My friend will criticise and reject me ’

**Possible problems/solutions:** Louise felt that she might feel too threatened to actually go through with the experiment. The therapist and client agreed to both engage in this task both sending emails with similar errors to a friend.

**Outcome:** In both cases, the friends responded to the meaning of the message and did not critique spelling or reject the sender. Louise realised that she could make mistakes and not be abandoned.

### 3.2.2. *Experiments for need for approval*

There is some indication that people with bipolar disorder are more likely to hold extreme beliefs around the importance of approval and recognition from others, when compared to those experiencing unipolar depression (Hawke & Provencher, 2012; Scott et al., 2000). This can sometimes manifest in individuals placing unrealistic and unreasonable demands on themselves, and taking increasingly elaborate steps, in order to ensure that they do not offend or upset the people around them. At times, people may wish to become more assertive or less obliging to others, but fear catastrophic social repercussions or fallout. Behavioural experiments can be devised whereby the person expresses their wishes or abstains from social activities to observe the impact it has on

others and the outcome of the situation. At times, additional self-esteem work, assertiveness training and perspective taking can assist and be a useful precursor to any behavioural work.

**Background:** Jake had struggled to make choices for himself for fear of upsetting other people. This meant he spent time doing things which he often didn't like, such as sitting in the pub several nights per week, despite this having a negative effect on his mood and functioning

**Key cognition:** 'I need other people's approval'

**Behavioural experiment:** Jake agreed to turn down an invitation to the pub when his friend next text messaged him during the week.

**Hypothesis:** 'If I turn down an invitation to the pub, no-one will contact me again '

**Possible problems/solutions:** Jake was concerned that he would ruminate on turning down the invitation, worsening his mood. He therefore planned an alternative activity to do instead.

**Outcome:** The friend accepted Jake's decision to do an alternative activity and rang for a chat a few days later. Jake realised that he can make choices based on his own needs and preferences'

### 3.2.3. *Experiments for intrusive memories:*

Intrusive mental images are characteristic of all mental health problems, including bipolar disorder, and can be traced back to early, pivotal memories (Harvey, Watkins, Mansell, & Shafran, 2004; Mansell & Hodson, 2009). Indeed, a sizeable proportion of people with bipolar disorder also have a diagnosis of PTSD, which is defined partly by the recurrence of intrusive traumatic memories. The current evidence indicates that when people are in euthymic or depressed mood states, they experience very similar, negatively valenced, intrusive memories of early experiences, to other mental health problems. Hypomanic states, on the other hand, are dominated by positively themed, future-oriented imagery of the self (Gregory, Brewin, Mansell, & Donaldson, 2010; Robyn, Ghisletta, & Van der Linden, 2012). Thus, there appears to be both depressed/anxious and high/hypomanic mental imagery, which may contribute to affective shifts, but are suitable targets for intervention in their own right.

Mansell and colleagues' (2007) recommend discussing these states to construct a 'bird's eye' perspective, with a view to finding a mid-ground between the high and low states that is ultimately more adaptive for the client (Mansell & Hodson, 2009). There are a number of behavioural experiments that can aid this approach. Firstly, clients can find it challenging simply to notice and

describe mental imagery. Some clients can experience overgeneralised memories (Mansell & Lam, 2004). For these clients, just recognising the presence of the memories and their impact can be helpful. This can then complement experiments aimed at testing beliefs about control of mental images and associated emotions. In contrast, other clients can find themselves describing their intrusive memories or images at such a pace that this feels overwhelming and uncontrollable. Here, the therapist and client can experiment with sharing one memory at a time, eventually helping the person to slow images, but also access and select memories or images that promote balance.

**Background:** Tom had a long history of mania, depression, and PTSD. He had grown up in a conflictual household and been physically abused from a young age. As an adult, he often experienced intrusive images of being assaulted. As a way of coping, he had learned to numb himself emotionally and avoid many situations that might trigger his intrusive images.

**Key cognition:** 'When I remember my past abuse, I must cut myself off completely to cope or I will relapse'.

**Behavioural experiment:** Following Tom's disclosure, an experiment was set up to test out his appraisals of the intrusive thoughts in the therapy session. Tom had shared that he had wanted to return to his mother's grave to pay his respects. However, he had avoided doing so because he feared a flood of intrusive memories would trigger a relapse. Now though, he had managed to share his memories with his therapist and partner and so he felt ready to test this out.

**Hypothesis:** 'If I re-experience my past memories, I will relapse within 48 hours'

**Problems/solutions:** It was possible that Tom had overestimated his ability to cope with his intrusive memories, so it was important to make sure he had all the appropriate support he wanted, and that he knew that he was in full control of this visit and could change his mind at any time.

**Outcome:** Tom visited his mother's grave, and he did experience a flood of intrusive memories, and he did get very upset, but he got the support that he needed from his partner, and in the following weeks he felt increasingly better, which was sustained over time.

**New cognition:** 'If I re-experience my past memories, I may feel upset, but I can cope'

#### 4. Conclusions

This article presents guidance for trained clinicians on conducting behavioural experiments in people with bipolar disorder as part of a course of CBT. The emphasis throughout has been on the importance of teamwork, collaboration, normalisation, and person-centred care. It is our opinion

that behavioural experiments are one of the most powerful tools for instigating change in people experiencing bipolar disorder and moving them towards their recovery focused goals. We hope that this paper will encourage and empower clinicians to use behavioural experiments in their future therapy.

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