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Turning lemonade into lemons: Dampening appraisals reduce positive affect and increase negative affect during positive activity scheduling

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ABSTRACT

The way individuals appraise positive emotions may modulate affective experience during positive activity scheduling. Individuals may either engage in dampening appraisals (e.g., think "this is too good to last") or amplifying appraisals (e.g., think "I deserve this"). A cross-over randomized design was used to examine the consequences of these appraisal styles. Participants (N = 43) rated positive affect (PA) and negative affect (NA) during four daily walks in pleasant locations, whilst following dampening, emotion-focus amplifying (focusing on how good one feels), self-focus amplifying (focusing on positive self qualities), or control instructions. There was no difference between the two amplifying and control conditions, which all increased PA and reduced NA during the walks. However, the dampening condition significantly differed from all other conditions, reducing PA and increasing NA during the walk. Individual differences in anhedonia symptoms did not significantly moderate the pattern of findings. This evidence supports the view that dampening appraisals may be one mechanism driving anhedonia and may account for why positive activity scheduling can sometimes backfire when utilized in the clinic.

1. Introduction

Emotion regulation can be defined as the variety of processes used to change the nature, frequency and intensity of emotion experience (Gross, 1998a, 2015). Historically there has been an emphasis on delineating the consequences of emotion regulation strategies that reduce negative affective experience. More recently, there has been an increasing interest in also characterizing the impact of strategies that aim to up-regulate positive affect (Bryant, Chadwick, & Kluwe, 2011; Carl, Soskin, Kerns, & Barlow, 2013; Quoidbach, Mikolajczak, & Gross, 2015). Understanding the specific strategies that help to build positive emotions in appropriate contexts could increase levels of wellbeing in the general population and in mental health conditions characterized by reduced positive affect (anhedonia), including depression, social phobia and schizophrenia (Dunn & Roberts, 2016; Dunn, 2012; Kashdan, Weeks, & Savostyanova, 2011; Watson & Naragon-Gainey, 2010).

The way in which individuals appraise their experience during potentially positive activities may impact on positive affect for better or for worse (so called 'positive rumination'; Martin & Tesser, 1996). For example, if when individuals start to feel positive mood they focus on how the experience is too good to last, how they do not deserve it, and how bad things will follow, this is likely to reduce positive mood. If, on the other hand, individuals focus on how good the experience feels and how it relates to personal qualities, this is likely to enhance positive affect. The notion that appraisal style can influence wellbeing has also emerged in both the clinical and positive psychology literature. In the clinical domain, cognitive therapy identifies 'discounting the positives' as a particular cognitive distortion that leads to the minimisation or dismissal of positive experiences (Beck, 2005). A central target of wellbeing therapy is to identify, target and ameliorate thoughts and beliefs that lead to premature termination of wellbeing experiences (Fava, 2016; Fava, Rafanelli, Cazzaro, Conti, & Grandi, 1998). In the positive psychology domain, the tendency to engage in 'kill-joy thinking' has been proposed to stifle positive feelings in potential wellbeing-enhancing situations and this has been contrasted to the beneficial effects of savoring appraisals (Bryant & Veroff, 2007; Bryant et al., 2011). Similarly the tendency to fault find (defined

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as paying attention to the negative elements of otherwise positive situations) has been proposed to undermine positive emotion experience, in contrast to a range of savoring strategies (Quiodbach, Berry, Hansenne, & Mikolajczak, 2010). While the basic-science, clinical and positive psychology literature all use different terms, they triangulate on broadly similar underlying theoretical constructs regarding positive appraisals. Henceforth, thoughts that blunt positive emotions will be referred to as 'dampening' appraisals and thoughts that enhance positive emotions will be referred to as 'amplifying' appraisals.

If the above notions are correct, psychological treatments aiming to improve levels of positive affect in conditions characterized by anhedonia are likely to benefit from systematically transforming dampening appraisals to amplifying appraisals. However, before acting on this logic, it is first necessary that the hypothesized consequences of appraising positive emotion experience in different ways be empirically demonstrated. In the negative emotion regulation literature, a twofold approach has been taken to evaluate the consequences of different emotion regulation mechanisms. The first approach is to establish if the dispositional tendency to utilize a particular emotion regulation strategy is associated with changes in wellbeing or symptom measures, typically relying on questionnaire self-report measures. For example, the general tendency to utilize cognitive reappraisal has been associated with greater levels of positive and reduced levels of negative affect (Gross & John, 2003). Such an approach however cannot establish the causal status of each emotion regulation mechanism and moreover demonstrates effects on mood (long term patterns of affect, often not linked to a triggering event) rather than emotion (short term changes in affect, often linked to a triggering event). Therefore, the second approach is to manipulate use of the candidate emotion regulation strategy and to assess what impact this has on emotional reactivity during a mood induction. This has typically been done in controlled laboratory settings. For example, following instructions to reappraise when viewing a distressing film clip has been shown to reduce physiological responding, relative to an expression suppression condition (Gross, 1998b). Only once both streams of evidence are present should a particular form of emotion regulation be considered to have strong support (and therefore be considered as a mechanistic target in clinical interventions).

There is now an accumulating body of evidence in the positive appraisal literature following the first approach (testing association using self-report and questionnaire methods). One of the earliest findings was that individuals low in self-esteem were more likely to dampen positive feelings when recalling positive memories and that the tendency to dampen during a positive event predicted lower mood the following day (studies 1 and 2; Wood, Heimpel, & Michela, 2003). These studies in part inspired the development of a self-report measure of positive appraisal style called the "Response to Positive Affect" scale (RPA; Feldman, Joormann, & Johnson, 2008), which was intended to capture ways in which individuals with mood disorders appraise positive emotion experience. The RPA consists of one factor measuring dampening appraisals and two factors measuring two distinct forms of amplifying appraisals. Emotion-focused amplifying involves focusing on how good one feels, whereas self-focused amplifying involves focusing on positive self-qualities.

Links between RPA factors and symptom severity across a range of mood disorders have now been established. In general, greater dampening and lower levels of EF and SF appraisals are linked to increasing anxiety, depression and mania symptoms in cross sectional analyses (e.g., Bijttebier, Raes, Vasey, & Feldman, 2012; Eisner, Johnson, & Carver, 2009; Feldman et al., 2008; Nelis, Holmes, & Raes, 2015; Raes et al., 2014; Raes, Daems, Feldman, Johnson, & Van Gucht, 2009; Werner-Seidler, Banks, Dunn, & Moulds, 2013; Nelis et al., 2015; Gruber, Eidelman, Johnson, Bailey, & Harvey, 2011; Johnson, McKenzie, & McMurrich, 2008). A handful of studies have utilized prospective designs to show that increased dampening at time-one can predict increased symptoms at time-two, even when controlling for time-one symptoms (Gilbert, Nolen-Hoeksema, & Gruber, 2013; Raes et al., 2014; Raes, Smets, Nelis, & Schoofs, 2012; although see null results in Bijttebier et al., 2012 and; Nelis et al., 2015). The two amplifying factors generally do not significantly predict subsequent symptom severity in prospective analyses (Gilbert et al., 2013; Nelis et al., 2015; Raes et al., 2012, 2014). While prospective designs cannot definitively establish causality because they do not control for possible confounder variables, these findings are broadly consistent with the view that the increased tendency to dampen and reduced tendency to amplify worsens mood disorder symptom severity.

It is important to note that the above findings link positive appraisal style to global symptom severity rather than anhedonia symptoms in particular. As far as we are aware, only two of the above studies also looked at anhedonia specifically, using the Mood and Anxiety Symptom Questionnaire (MASQ; Watson & Clark, 1991) to measure anhedonia. A multi-study paper by Werner-Seidler et al. (2013) found anhedonia was robustly linked to positive appraisal style. In a sample of undergraduate students, greater anhedonia on the MASQ was associated with greater levels of dampening and reduced levels of the two amplifying strategies. These effects largely held when controlling for other symptoms of depression (the MASQ general distress and anxious arousal dimensions). In a community sample including individuals who were never depressed, previously depressed, and currently depressed, these effects were largely replicated. Greater anhedonic symptoms were related to increased levels of dampening and reduced levels of amplifying, and the dampening and emotion-focus amplifying relationship held when controlling for other MASQ symptom dimensions. In slight contrast, Nelis et al. (2015) found that greater dampening was cross-sectionally related to greater anhedonia symptoms on the MASQ in a large community sample, but that this effect did not hold when controlling for global depression severity. In prospective analyses, reduced self-focus amplifying (but not levels of emotion-focus amplifying or dampening) at time-one predicted anhedonia symptoms at time-two (Nelis et al., 2015).

Overall, data from correlational studies suggests there is reasonable but not overwhelming support for the claim that trait levels of dampening and amplifying appraisals are linked to symptom severity generally (and anhedonia specifically).

As discussed above, the second strand of evidence required to establish an emotion regulation mechanism as a target for treatment is to show that manipulating it alters affective experience. As far as we are aware, there have been no studies to date that manipulate use of different positive appraisals and examine the affective consequences that follow during a positive mood induction. One study examined whether the trait tendency to utilize emotion-focus, self-focus and dampening appraisals was related to reactivity to a positive mood induction (thinking about completion of a positive future goal) in individuals with major depressive disorder or bipolar disorder (Gilbert et al., 2013). Greater levels of trait emotion-focus and self-focus were related to greater subjective positive affect experience during the mood induction in both patient groups, but contrary to predictions levels of dampening were not associated with reactivity in either sample. However, as appraisal style was not manipulated in this study, it is not possible to make any strong inferences from these data. Moreover, there is unlikely to be a perfect correspondence between the trait tendency to use dampening appraisals and the use of those appraisals in the moment during the experimental mood induction. It may therefore