Motivational Pessimism and Motivated Cognition

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Abstract

I introduce and discuss an underappreciated form of motivated cognition: motivational pessimism, which involves the biasing of beliefs for the sake of self-motivation. I illustrate how motivational pessimism avoids explanatory issues that plague other (putative) forms of motivated cognition and discuss distinctions within the category, related to awareness, aetiology, and proximal goals.

Keywords: Motivational Pessimism, Motivated Cognition, Belief Bias, Self-Motivation

1. Introduction

Humans often form inaccurate beliefs. We believe that random events are more likely to occur when they have not occurred recently (the gambler's fallacy); that we have greater control over events than we do (the illusion of control); and that past events were more predictable than they were (hindsight bias). Beyond these, many of us are prone to believing in pseudoscience, misinformation, or implausible conspiracy theories.

There is widespread debate over how to classify and explain inaccurate beliefs. A frequent (albeit controversial) explanation implicates *motivated cognition*, wherein our beliefs are distorted by the goal of obtaining pragmatic benefits (and avoiding pragmatic costs). Such benefits can be roughly sorted into three categories: *hedonic* (e.g. reducing anxiety or increasing self-esteem); *social* (e.g. signalling to or convincing others that we possess socially desirable attributes); or *motivational* (e.g. encouraging us to attempt or persist at challenging tasks). This claim is argued for (in different guises) by various philosophers (Funkhouser & Barrett, 2016; Williams, 2021), neuroscientists (Sharot & Garrett, 2016), psychologists (Kunda, 1990; Taylor, 1989; Von Hippel & Trivers, 2011), and behavioural economists (Bénabou & Tirole, 2016; Loewenstein & Molnar, 2018).

Hedonic and social benefits have attracted the most interest. In psychology and behavioural economics, the role that hedonic benefits play in biasing our beliefs is heavily researched (Cooper, 2007; Gilbert, 2009; Loewenstein, 2006; Sharot & Sunstein, 2020). The influence of social benefits on our beliefs is also heavily researched in psychology (especially social, political, and evolutionary psychology) (Kahan, 2016; Kurzban, 2011; Van Bavel & Packer, 2021), and there has been a recent surge of philosophical interest

into the topic (Funkhouser, 2022b; Westra, 2023; Williams, 2021). With some notable exceptions, the influence of motivational benefits on beliefs has been relatively overlooked.[1] In this paper, I address that oversight by introducing a specific form of motivated cognition induced by motivational benefits, which I call *motivational pessimism*.

The paper unfolds as follows: In section 2, I introduce the literature on biased beliefs and motivated cognition, outlining issues with explaining the former in terms of the latter. In section 3, I introduce two categories of belief bias, regarding physical attractiveness and likelihood of failure. I argue that these biases sometimes qualify as instances of motivational pessimism. In section 4, I discuss some distinctions within the category of motivational pessimism. In section 5, I conclude with some implications of my argument and future directions for research.

2. Motivated cognition and observational equivalence

Throughout the paper, I will use the term *belief bias* to refer to a pattern of belief formation that systematically deviates from what is warranted by the available evidence (Kelly, 2023). If one consistently believes that their favourite football team will win their next match, despite them always losing, this qualifies as belief bias (*ibid.*). I use the term *belief-biasing practise* to refer to any practise that causes one's beliefs to systematically deviate from what is warranted by the available evidence. This can involve selectively gathering, attending to, or remembering evidence, directional reasoning (for example, generating justifications for certain beliefs), or directional influences on the way information is processed (for example, the extent to which beliefs update in response to new evidence). One might, for example, consistently believe their favourite team will win by ignoring or forgetting all the times they lose, by generating justifications for why they have lost so much (a string of back luck, perhaps), or by simply not updating their belief about their teams' abilities in the face of their consistent losses.

There are various ways to explain misbeliefs, not all of which refer to bias. Consider someone who believes, contrary to the available scientific evidence, that vaccines cause autism and who dismisses scientific testimony to the contrary. This need not represent belief bias. Someone who is brought up to believe that vaccines are dangerous (and to distrust those who say otherwise) is not biased for doing so. According to this line of explanation, what appear to be belief biases are not, as the relevant beliefs are consistent with the evidence made available to the individual (Levy, 2021).

There are also different forms of belief bias. For example, biased beliefs can stem from "simplified information processing strategies", which trade accuracy for functional advantages, such as speed or efficiency (Heuer, 1999, p. 111). Consider a famous example:

[1] Both psychologists and behavioural psychologists have discussed the motivational benefits of positive beliefs (Bandura, 1989; Bénabou & Tirole, 2016), but these discussions are eclipsed by the volume of research on hedonic and social influences. Some philosophers have also discussed the idea. Peters (2022), for example, argues that confirmation bias motivates behaviour that brings our (social) reality in line with our beliefs and the literature on epistemic innocence also notes the motivational benefits of irrational beliefs (Bortolotti, 2020).

> *Linda is 31 years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations.*

Which is more probable?

1. Linda is a bank teller.
2. Linda is a bank teller and is active in the feminist movement.

When presented with this question, participants systematically judge that the second statement is more probable. This represents a belief bias because, given the laws of probability, the evidence presented warrants option one being more probable. A standard interpretation of this bias refers to the representative heuristic: people's judgments are influenced by the resemblance between option two and the description of Linda (Tversky & Kahneman, 1983). Belief biases that emerge from simplified information processing strategies like the representative heuristic are often referred to as *cold* biases.

Belief biases might also stem from *motivated cognition*. In cases of motivated cognition, the relevant belief-biasing practises are driven by the goal of obtaining pragmatic benefits (and avoiding pragmatic costs). The existence (and explanatory reach) of motivated cognition is controversial as, for many purported instances of motivated cognition, the relevant beliefs can be explained with reference to non-motivational factors (i.e. cold or unbiased processes). The worry, simply put, is that "the purported evidence in favor of motivated reasoning can always be given a nonmotivational account" (Coppock, 2023, p. 122; see also: Kunda, 1980, p. 480). This is referred to as the problem of *observational equivalence* (Druckman & McGrath, 2019). Establishing the existence of motivated cognition requires overcoming this problem.

There is, however, another problem of observational equivalence, which has received less attention. To illustrate, consider the *superiority* and *unrealistic optimism* biases (Taylor & Brown, 1988). Superiority bias refers to the tendency to rate oneself as better than average regarding a host of positive attributes. Examples include intelligence, athleticism, driving ability, memory, finances, and romantic success. Unrealistic optimism bias refers to the tendency to rate oneself as less susceptible to undesirable events than one's peers. Examples include getting a divorce, being in a car accident, and suffering from cancer.

Researchers have pointed to these two biases as clear examples of motivated cognition, induced by the hedonic, social, or motivational benefits of holding optimistic beliefs (Kurzban, 2011; Taylor & Brown, 1988). So the argument goes, optimism about superiority and future prospects provides three kinds of benefits: increased self-esteem (hedonic), convincing others of our positive attributes (social), and motivation to attempt difficult tasks, increasing our overall chance of success (motivational). Relatedly, experimental research illuminates various belief-biasing practises that contribute to overly optimistic beliefs about ourselves. People selectively expose themselves to sources of information they expect will be positive (Dezza et al., 2022); update their beliefs more strongly in the face of positive, compared to negative feedback about themselves (Eil &

Rao, 2011); and selectively recall positive, as opposed to negative, feedback (Zimmermann, 2020).

Even if we accept that positive illusions stem from motivated cognition, if such beliefs provide hedonic, social, and motivational benefits, it is difficult to discern which form of benefit drives that motivated cognition. For example, positive illusions might be influenced by the goal of obtaining hedonic benefits, even though the resulting beliefs are also motivationally beneficial.[2] Or, they might be influenced by the goal of obtaining social benefits, even though the resulting beliefs are also motivationally beneficial (Kurzban, 2011, p. 113-116). To establish that motivational benefits can influence beliefs, one must identify examples that involve belief-biasing with no hedonic or social benefits.

The standard approach to overcoming the problem of observational equivalence is to improve our experimental techniques to control for alternative explanations (Tappin et al., 2020). Here, I adopt a different strategy. I identify patterns of belief formation where the available evidence already suggests the presence of motivated cognition, guided by a particular form of pragmatic benefit, namely, self-motivation.

3. Motivational pessimism

In contrast to those with positive illusions, some are unjustifiably negative about their attributes and prospects. In this section, I discuss evidence of this phenomenon. I argue that, in some cases, it qualifies as motivational pessimism: a bias towards negative beliefs about oneself or one's prospects for the sake of self-motivation. First, however, I address the relationship between negativity and self-motivation.

The received wisdom is that optimism is self-motivating (Sharot, 2012; Taylor & Brown, 1988). In believing that we are superior and less likely to suffer misfortunes, we assume we have a high chance of success, which prompts us to pursue our goals. On the contrary, pessimism about ourselves and our prospects would seem to have the opposite effect. Why bother trying if the odds are against you? This is why pessimism is widely regarded as draining motivation.

Contrary to the common view, pessimism can (in some contexts) be self-motivating. When one is committed to attempting a task and believes that the task is achievable, pessimism can motivate effort by representing it as required (Bénabou & Tirole, 2016). Consider a toy example. A friend offers me a large sum of money if I beat her at chess. How would belief-biasing affect my motivation? No matter my chances, I plan to play—I won't give up a shot at the prize money. But an unjustifiably positive belief about my prospects may cause me to expend less effort in the lead-up to and during the game. If winning is certain, then why bother preparing? If, however, I hold an unjustifiably negative belief about our comparative skill and, therefore, my chance of winning, then

[2] Sharot's research suggests such a view. While she argues for the motivational benefits of positive illusions (Sharot, 2012), when describing the goals that contribute to such beliefs, she focuses specifically on hedonic benefits (Sharot et al., 2023; Sharot & Sunstein, 2020).

effort is now a requirement.[3] I should start practising, take my time during the game, be careful not to make any mistakes, and so on. Of course, various factors determine whether (and to what extent) pessimism is self-motivating. My aim is not to identify all such factors, only to demonstrate that negative beliefs can be motivationally beneficial under the right circumstances.

With these considerations in mind, we can define motivational pessimism as involving a bias towards negative beliefs about oneself or one's prospects wherein the relevant belief-biasing practises are driven by the goal of self-motivation. Though motivational pessimists are always biased towards negative beliefs about themselves or their prospects, the specific content of such beliefs is otherwise open-ended. Consequently, motivational pessimism can be found in various domains.

3.1 Comparative unattractiveness bias

The first example of motivational pessimism involves what I will refer to as *comparative unattractiveness bias*. While research into the superiority bias illustrates that most people judge themselves as above average in terms of positive attributes, comparative unattractiveness bias involves the opposite pattern of belief formation. The bias manifests differently in the two groups I will focus on. In one group, it applies to comparative body size (i.e. 'fatness'); in the other, it applies to comparative muscularity.[4] Those who exhibit this bias rate themselves as fatter or less muscular than their peers despite being thinner or more muscular. This bias is particularly prevalent among those who highly value, strive for, and are preoccupied with attractiveness (of the relevant form i.e., thinness or muscularity) (Bell et al., 2016; Girard et al., 2018; Homan, 2010; Pritchard, 2014). While this bias sometimes spirals into mental disorder (eating disorders or body dysmorphia) it is also present (albeit less common) in non-clinical samples.

We can gain some insight into the cause of the comparative unattractiveness bias by looking at the kinds of belief-biasing practises associated with it. One such practise is *negative body scrutinising*.[5] Participants who are pessimistic about their comparative attractiveness selectively attend to the (self-rated) unattractive parts of their own body; when looking at others', they attend to more attractive people and their attractive parts. In the case of those striving for a thin body, the focus is on body size (Farrell et al., 2004; Freeman et al., 1991; Jansen et al., 2005; Roefs et al., 2008; Tuschen-Caffier et al., 2015), in the case of those striving for muscularity, the focus is on muscularity (Cho & Lee,

[3] The belief cannot, however, be too negative. If one believes they have no chance of winning no matter the effort expended, then they are unlikely to expend any effort.

[4] This is sometimes referred to as *body dissatisfaction* or *body image disturbance*. While these terms refer to a much broader class of mental states and behaviours, they commonly involve pessimism about one's attractiveness. For example, a common questionnaire used to assess body image disturbance, the Body Image State Scale (Cash et al., 2002) asks participants to rate "Right now I feel…" on a scale from "Extremely physically attractive" to "Extremely physically unattractive" and "Right now I feel that I look…" on a scale from "A great deal better than the average person looks" to "A great deal worse than the average person looks".

[5] This is researched under the labels *body checking* (Shafran et al., 2007), *attentional bias* (Roefs et al., 2008), and *upwards social comparison* (McComb & Mills, 2021). However, each of these labels refers to only one aspect of negative body scrutinising. For example, upwards social comparison refers to a bias in the kinds of bodies attended to, without reference to body parts. I am interested here in the broader category of behaviour.

2013; Waldorf et al., 2019). This contrasts with controls, who are either more neutral (Freeman et al., 1991; Tuschen-Caffier et al., 2015) or exhibit the opposite (positive) pattern of body scrutinising (Jansen et al., 2005).

Correlational evidence suggests that negative body scrutinising is associated with both pessimism about one's physical appearance and motivation towards weight loss or muscle gain (Bauer et al., 2017; Cordes et al., 2017; Galioto & Crowther, 2013; Hargreaves & Tiggemann, 2009; Lavender et al., 2013; Roefs et al., 2008). Instructing participants to engage in negative body scrutinising also increases body dissatisfaction (McComb & Mills, 2021; Shafran et al., 2007; Smeets et al., 2011).[6] Finally, some who employ this practise report doing so deliberately, "…to induce distress and hence increase their motivation to maintain dietary restraint" (Shafran et al., 2004, p. 100; see also: Opladen et al., 2021). These converging streams of evidence suggest that some cases of negative body scrutinising are undertaken for self-motivation. By biasing themselves towards pessimism about their attractiveness, negative body scrutinisers motivate themselves to expend greater effort on dieting or exercise. Consequently, some instances of comparative unattractiveness bias qualify as motivational pessimism.

3.2 Likelihood of failure bias

The second example of motivational pessimism stems from research into *defensive pessimism*. Defensive pessimism is a broad phenomenon involving various forms of strategic behaviour and emotional states (Norem, 2008). Here, I will focus on a specific feature of it, which I will refer to as the *likelihood of failure bias*. This bias is illustrated in the following vignette:

> Katherine is a successful sociology professor at an elite university. She's bright, she works hard, and she's enthusiastic about her work. You might be surprised to discover that Katherine is also often pessimistic. When she's planning a research project, putting together a panel of speakers for a campus event, or even arranging a colleague's retirement dinner, she's convinced that everything will be a disaster … Of course, all of us who know her are quite confident that everything will turn out well: The research will be illuminating, the speakers will be interesting, the dinner will be a glorious success— and the vast majority of the time, we're right. (2008, p. 18)

Like Katherine, those who exhibit this bias are unjustifiably pessimistic about their likelihood of failure. But while they are often convinced that certain endeavours will fail, they are not generally pessimistic (Norem, 2008, p. 27). They are, for example, no more likely to believe that they are bad drivers or that they will die of cancer. Their pessimism is specifically directed at their chance of succeeding at certain tasks.

[6] While dissatisfaction with one's body can't be equated with rating oneself as comparatively fatter or less muscular than one's peers, it is generally assumed to stem from such ratings. Thus it is plausible that the increase in dissatisfaction evident in these studies might, in some cases, stem from a shift in judged attractiveness.

The likelihood of failure bias is associated with its own belief-biasing practise, which I will refer to as *negative forecasting*. This involves generating hypotheses regarding things that could go wrong. In the example of Katherine, this involved the different ways in which her event could fail. In the case of students preparing for an exam, this involves possibilities such as, "I studied the wrong content", "the teacher will set an especially difficult exam", and "I didn't prepare enough".

Explanations for negative forecasting often assume that it aids in success by allowing individuals to prepare for potential negative outcomes (Norem, 2008, p. 39). This hypothesis plausibly explains some cases. For example, when planning for an upcoming event like Katherine's, it is advantageous to generate hypothetical misfortunes, so as to plan for them. However, this benefit cannot explain all cases of negative forecasting. The practise is also seen in the direct lead-up to exams, for which there is little value in preparing for unforeseen events (either one has done the requisite study or not) (Norem & Cantor, 1986b). My focus, then, is on a distinct benefit of this strategy, namely, self-motivation.

By generating possibilities for what could go wrong, negative forecasters increase their conviction that something will go wrong and, consequently, that their chance of failure is high (Norem & Illingworth, 1993). Interestingly, negative forecasting mirrors a strategy that is well-studied in the literature on motivated cognition, wherein individuals generate justifications for a desired belief (Klein & Kunda, 1992). In this case, the proposition "failure is likely" is justified by generating hypotheses for the myriad of ways in which failure could occur. Negative forecasters don't just generate such hypotheses, they "spend lots of time and energy mentally rehearsing, in vivid, daunting detail, exactly how things might go wrong" (Norem, 2008, p. 9). This mental rehearsing likely triggers the phenomenon whereby we increase our confidence in the likelihood of hypotheses that we are repeatedly exposed to, especially when those hypotheses are self-generated (Petty & Cacioppo, 2018, Chapter 8).[7]

Research on negative forecasting highlights the motivational benefits of the process (Showers & Ruben, 1990). Negative forecasters' belief that there is a high chance of failure justifies the need for effort (to avoid such failure). This manifests in greater preparation in the lead-up to important tasks and greater effort expended during tasks. Some who engage in negative forecasting are aware and in control of this strategy (Norem, 2008, p. 56). When asked to describe their thoughts and feelings before an exam, many students (preselected for engaging in negative forecasting) reported that they dwelled on how unprepared they were "in order to get [themselves] to work harder" (Norem & Cantor, 1986b, p. 1213). As with negative body scrutinising, negative forecasting works. When the strategy is denied or interfered with, those who usually employ it perform worse (del Valle & Mateos, 2008; Norem & Cantor, 1986b; Sanna, 1998).

Negative forecasting and the likelihood of failure bias that stems from it are studied under the label of defensive pessimism (Norem, 2008). However, while there is overlap

[7] Alternatively, the act of imagining possibilities might shift these individuals' confidence (Rivadulla-Duró, forthcoming).

between the two categories, they are nevertheless distinct. As noted, motivational pessimism is not restricted to certain categories of belief content. People who pursue thinness or muscularity can qualify as motivational pessimists, without qualifying as defensive pessimists. Defensive pessimism is also broader in terms of the goals involved, as it encompasses those who use negative forecasting to harness their anxiety for effective planning (Norem, 2008).[8] Motivational pessimism, on the other hand, is a strategy for self-motivation, not anxiety management.

Negative forecasting, as a self-motivational strategy, extends beyond cases of defensive pessimism. The practise is associated with the *imposter phenomenon*, wherein highly successful and intelligent individuals believe that they are less competent and talented than their peers (Clance, 1985). People with imposter syndrome not only engage in negative forecasting in the lead-up to important tasks but also avoid and dismiss evidence supporting their talent and competence (a distinct belief-biasing practise) (Cozzarelli & Major, 1990). As Leary and colleagues describe, they "… dismiss praise, derogate the accuracy of positive evaluations, and engage in other behaviors that insulate them against information that would validate their competence and worth" (2000, p. 72). In engaging in such practises, they bias themselves towards unjustified negativity, both about their chance of failure and their abilities. Importantly, psychologists observe the motivational benefits that stem from these beliefs, as those who hold them work especially hard to overcome their self-perceived shortfalls (Clance & Imes, 1978, p. 244). As with defensive pessimists, those who exhibit the imposter phenomenon often recognise the condition's motivational benefits, as noted by the clinical psychologists Harvey and Katz (1985, p. 206):

> Not everyone wants to break free of the impostor phenomenon. Some are afraid to let go of the belief that they are fakes. … It seems to them that the sense of being an impostor is motivating them to do a better job.

This suggests that some who exhibit the imposter phenomenon qualify as motivational pessimists and, among other practises, employ negative forecasting to bias themselves towards negative beliefs for the sake of self-motivation (Gadsby, 2022a). This represents another form of motivational pessimism that does not fall under the category of defensive pessimism.

Before moving on, I will address a potential challenge to my characterisation of the comparative attractiveness and likelihood of failure biases: Do those who exhibit these biases genuinely believe that they are less likely to succeed in a task or less attractive than their peers, or do they simply assert such statements?[9] While assertions are standardly assumed to reflect belief (Rose et al., 2014), they can sometimes reflect alternative attitudes (Bullock & Lenz, 2019; Van Leeuwen, 2023). Nevertheless, aspects of these biases support the belief bias interpretation. For example, the relevant individuals not

[8] In Norem's (2008) recent work, she often refers to defensive pessimism as a strategy for anxiety management, e.g. "Defensive pessimism is a strategy that can help anxious people harness their anxiety" (p. 9). At certain points, she even suggests that anxiety is a necessary condition for defensive pessimism, e.g. "Defensive pessimism would make little sense if we didn't know that the people who use it are anxious and that anxiety creates particular problems for those who experience it" (p. 31)

[9] Thanks to a reviewer for pushing me on this point.

only assert such claims but engage in the kinds of practises that would lead to believing them (i.e., negative body scrutinising and forecasting). Such practises are known to influence beliefs, providing independent reason to think that the relevant beliefs are indeed influenced. Additionally, motivational pessimists don't just talk the talk, they walk the walk—they work harder to achieve their goals. This is precisely the kind of behaviour we would expect from someone who genuinely held such beliefs. Unless we can explain why these individuals would speak and behave in ways consistent with holding pessimistic beliefs, while avoiding the usual belief-biasing effects of negative body scrutinising and forecasting, we should assume that the comparative attractiveness and likelihood of failure biases are genuine belief biases.

3.3. Motivational pessimism and observational equivalence

To overcome the problem of observational equivalence, one must demonstrate that the relevant beliefs cannot be explained with reference to simplified information processing strategies or unbiased processes. As Druckman and McGrath note, this can be done by illustrating that "an individual possesses a directional goal and that information processing is tailored to achieve that goal" (p. 114). The same desideratum applies to illustrating that the above biases qualify as motivational pessimism.

The preceding biases satisfy both Druckman and McGrath's conditions. Not only are they associated with belief-biasing practises, (body scrutinising and negative forecasting), self-reports suggest that such processes are driven by the goal of self-motivation.[10] But even if we accept that comparative unattractiveness and likelihood of failure biases stem from motivated cognition, there remains the question of which form of pragmatic benefit is involved. As stipulated, motivational pessimism is induced by motivational benefits, so to qualify these biases must be also. Unlike in the case of positive illusions, the biases under discussion avoid this issue, as they represent cases of dissociation: motivational benefits are induced, while hedonic and social benefits are not. In the comparative unattractiveness and likelihood of failure biases, hedonic states are either unaffected or negatively affected. Believing that one is less attractive than average or likely to suffer misfortunes does not induce positive affect. This excludes the goal of attaining such benefits as a potential cause.

One might argue that negative forecasting provides future hedonic benefits, as the strategy plays a disappointment cushioning role (Norem & Cantor, 1986a). The idea is that we are happier when we perform better than expected and sadder when we perform worse than expected, so by exaggerating our chance of failure, we shield ourselves from disappointment and increase our chance of a pleasant surprise. However, it is unlikely that disappointment cushioning drives all instances of negative forecasting. Despite holding lower expectations and performing equally as well as their peers, people who use this strategy are not more satisfied with their performances. In fact, some evidence suggests that they are less satisfied (Norem & Cantor, 1986b). More importantly, however, some are explicit about using negative forecasting for motivation rather than

[10] Despite being underutilised in the literature on motivated cognition, self-report measures are useful for uncovering the motives behind belief-biasing practises (Hertwig & Ellerbrock, 2022).

disappointment cushioning (*ibid.*). Given that negative forecasting appears to deliver such motivation, we ought to take these individuals at their words.

One might also argue that there are social benefits to these biases. In the case of comparative unattractiveness bias, the end goal certainly appears social (to appear attractive to others). However, the important point is that the beliefs themselves do not deliver such benefits. Negative forecasting may sometimes involve social benefits. Many who engage in the strategy not only believe that they are likely to fail, they tell others. By downplaying their chance of success, negative forecasters may be attempting to garner sympathy or save face in the event of failures. However, as with disappointment cushioning, it is unlikely that this can explain all instances of the bias. First, it seems likely that, in many cases, the strategy is socially detrimental, as it leads to negative impressions and annoyance from one's peers (Norem, 2001, p. 92). Second, negative forecasting does not always involve a social element. For example, the strategy is present in anonymous experimental contexts, where there is no opportunity to advertise one's low expectations and no social benefit in doing so.

Hedonic and social benefits represent unlikely explanations for the comparative unattractiveness and likelihood of failure biases. Additionally, some of those who exhibit these biases report engaging in the relevant strategies for self-motivation. Consequently, it is reasonable to assume that these biases (sometimes) qualify as motivational pessimism.

4. Proximal goals, awareness, and aetiology

4.1. Proximal goals

I defined motivational pessimism as involving belief-biasing practises driven by the goal of self-motivation. However, an important question pertains to the *proximal* goal of such practises, specifically, whether they are belief-directed. In belief-directed motivated cognition, the proximal goal of the strategy is to form a specific belief (for the sake of benefits derived from that belief) (Funkhouser, 2019). While this strategy represents a paradigmatic form of motivational pessimism, an alternative form is one where the proximal goal does not involve altering one's beliefs.

Consider the following example (Mele, 1992; Perring, 1997). Sam's wife, Sally, has begun frequently arriving home late from work and leaving the house alone after dinner. Sam's close friend tells him that he saw Sally at a local bar, in the company of another man. Having experienced a difficult divorce in the past, Sam recoils at the unpleasantness of considering the significance of this information. In refusing to consider the evidence about Sally's recent behaviour, Sam biases himself away from (correctly) concluding that she is having an affair.

Cases like these represent a widespread and important form of motivated cognition (Mele, 1997). In choosing not to think about the evidence from his friend, Sam's goal is hedonic. In pursuing that goal, Sam employs a belief-biasing strategy (avoiding evidence evaluation) and consequently biases his beliefs. However, consider the proximal goal of

this strategy. Sam's aim is not to obtain hedonic benefits from a belief itself, it is simply to avoid the unpleasantness of contemplating the evidence. Consequently, while this phenomenon qualifies as motivated cognition, it is not belief-directed. As I will illustrate, there are likely various forms of motivational pessimism that are similarly non-belief-directed.

A non-belief-directed form of motivational pessimism involves the goal of manipulating one's emotions. For example, certain forms of anxiety are assumed to motivate cognitive effort (Kurth, 2018). In the face of a difficult task, feelings of tenseness and unease can trigger increased effort. Perhaps then, belief-biasing practises like negative forecasting, are aimed at increasing anxiety for the sake of increasing cognitive effort.[11] There may be other emotions targeted in motivational pessimism. Anger, for example, can be motivating, and athletes often exploit this. This was a strategy of the basketball great, Michael Jordan, who famously manipulated his own anger to play harder. In one incident, the coach of an opposing team (the supersonics) walked by Jordan in a restaurant, without acknowledging him. Jordan focused on this incident to stoke his anger and garner self-motivation to play harder against the supersonics. Jordan's goal was not to bias his beliefs. Rather, anger directed at the opposing team motivated him to adopt a harder playing style—focusing on the memory of the snub helped him to generate and channel anger into his play. Jordan used this technique regularly, focusing on (and sometimes fabricating) slights from an opposite team, to put himself in a sufficiently enraged game state. Cases where this strategy of biasing oneself towards anger resulted in biased belief—for example, beliefs about what an opposing team did in the lead-up to a game—would qualify as another form of motivational pessimism.

Emotions are not the only non-doxastic goals associated with motivational pessimism. Consider one of the aspects of negative body scrutinising: focusing one's attention on attractive bodies. While the goal of this strategy may be to bias one's beliefs, it may also be to inspire oneself. This is consistent with the phenomenon of *thinspiration/fitspiration*, which consists of seeking out pictures of particularly thin or muscular bodies to aspire to, for the sake of self-motivation (Talbot et al., 2017). Note, however, that while selectively attending to the attractive parts of attractive bodies may be driven by the goal of inspiring oneself, it has a (potentially unintended) doxastic side-effect. By disproportionately viewing attractive bodies, one changes their belief about the average attractiveness of their peers. In doing so, they shift their belief regarding their comparative attractiveness and, consequently, engage in motivational pessimism.

We can distinguish between the goals and the outcomes of motivational pessimism. Motivational pessimists might aim to bias their non-doxastic states (for example, emotions like anxiety or anger) and, in doing so, bias their beliefs. Or they might attempt to bias their beliefs and, in doing so, also bias their non-doxastic states.[12] So long as the

[11] While this may explain some cases of negative forecasting, it is unlikely to apply universally. Negative forecasting does not necessarily increase anxiety. For example, Shower and Ruben (1990) showed that in the period between 17 days and one day before an exam, negative forecasting increased significantly (among their participants who use the strategy), though anxiety did not.

[12] Another possibility is that the relevant strategies do not bias beliefs whatsoever but operate purely by biasing non-doxastic states. While such cases are possible, they do not qualify as motivational pessimism. In discussing the

goal is to motivate and biased beliefs are an outcome, it qualifies as motivational pessimism. Focusing on the various proximal goals involved in motivational pessimism represents a promising avenue for future research.

4.2. Awareness and aetiology

Thus far, I have characterised motivational pessimism as a conscious and deliberate strategy. Motivational pessimists deliberately engage in belief-biasing practises for the sake of self-motivation and are aware that they are doing so. This contrasts against many forms of motivated cognition, which are assumed to be unconsciously driven. That is, while motivated cognition is driven by the goal of obtaining pragmatic benefits, the individual is unaware of this goal and its influence on the relevant biasing behaviour. Indeed, some argue that motivated cognition that is deliberately pursued is either impossible or at least highly difficult, as it is bound to undermine itself (Mele, 2001).

However, conscious and deliberate motivated cognition is not as difficult as it is often portrayed. So long as people engage in appropriate belief-biasing practises, they can consciously and deliberately bias themselves (Cusimano & Lombrozo, 2023; Hertwig & Ellerbrock, 2022; Rosenzweig, 2016). The important question is not whether conscious and deliberate belief-biasing is possible but in which contexts it is more prevalent. People in need of self-motivation may be one such context.

There may be different forms of motivational pessimism that relate differently to conscious awareness. Some forms may be consciously driven, others unconsciously so. The relationship between the relevant goals and awareness may also shift. For example, a case of motivational pessimism may, at one point, be conscious and deliberate, but after the strategy yields motivational benefits, it becomes habituated, such that people engage in the practise automatically, without a particular purpose in mind. This diversity is broached by Norem, in her discussion of defensive pessimism:

> People may … be aware that they use a particular strategy without necessarily being aware of when or why they are using that strategy. Thus, for example, many people recognize themselves in the description of someone using defensive pessimism but maintain that using the strategy was not what they were doing in the particular laboratory performance or situation under discussion, even though data or observation suggests otherwise. Other times, individuals will recognize in retrospect that they used a strategy, but they were not aware of using it at the time. (Norem, 2001, p. 79)

Just as motivational pessimism can relate to awareness in various ways, it may exhibit various aetiologies. Note that something akin to motivational pessimism is a widespread interpersonal strategy. Think of the overbearing parent who, out of an intense desire for their children's success, points out their shortfalls at every chance, assuming that doing so will fuel their child's motivation. This strategy is also found among coaches, who, during

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category of motivational pessimism, my aim is to elucidate an important route through which belief bias can emerge. Consequently, self-biasing that does not involve belief-biasing bias does not fit this category.

training season, accentuate the strengths of the opposing team, to motivate their athletes to train harder. In such cases, the relevant belief-biasing is directed at others—motivational pessimism as an interpersonal strategy. The ubiquity of interpersonal motivational pessimism suggests a potential aetiology for its intrapersonal form. Upon recognising this interpersonal strategy's benefits, some may direct it inwards, hoping to induce those same benefits.

The interpersonal aspect of motivational pessimism chimes with recent philosophical discussions regarding the socially embedded nature of motivated cognition. Funkhouser (2022a), for example, discusses the role of social environments in motivated cognition, noting that our peers can play an active role in biasing our evidence (and therefore our beliefs) (see also: Dings, 2017; Williams, 2023). The interpersonal origin of (many forms of) motivational pessimism suggests another social contribution: our peers can teach us belief-biasing practises as strategies for achieving our goals. This suggests that the extent to which someone engages in motivated cognition can reflect individual learning.

5. Implications and conclusion

Motivational pessimism manifests in different forms of belief bias, involving unjustifiably negative beliefs about oneself and one's prospects. In contrast to the ubiquity of positive illusions, motivational pessimism is only exhibited by certain individuals in certain contexts. Importantly, it represents a form of motivated cognition driven by motivational benefits, rather than the more widely researched hedonic or social benefits.

There are implications of the argumentative strategy employed here. Much of the debate surrounding motivated cognition focuses on misbeliefs that are ubiquitous, like positive illusions. As noted, however, researchers have run into considerable difficulty in confirming that such beliefs do not stem from non-motivational factors and further difficulty isolating which forms of benefits might be involved. This paper suggests that a different strategy may prove useful for confirming the presence, extent, and nature of motivated cognition. It suggests focusing on context-specific, rather than widespread, biases.

Another implication of this argument relates to the possibility that motivational pessimism can explain clinically relevant symptoms. For example, certain eating disorders, such as anorexia nervosa and bulimia nervosa, are associated with comparative unattractiveness beliefs, wherein those diagnosed hold unjustifiably negative beliefs about their comparative thinness (cf. Gadsby, 2023). Such beliefs are widely regarded as a paradigmatic feature and driving force behind these disorders (Palmer, 2003). While negative body scrutinising is present in the neurotypical population, it is even more severe among eating disorder sufferers. Indeed, many theoretical accounts of eating disorders assume that negative body scrutinising plays a crucial disorder-maintaining role (Fairburn et al., 1999). However, there is no consensus over what drives the behaviour. The concept of motivational pessimism suggests an attractive hypothesis, namely, that negative body scrutinising in eating disorders is sometimes pursued for the sake of self-motivation (Gadsby, 2020; cf. Steglich-Petersen & Varga, 2023).

Not all who strive to achieve their goals adopt the strategy of motivational pessimism. Why is the strategy only exploited by some individuals? One possibility has already been hinted at. Some are aware of the strategy, through prior exposure to interpersonal forms of motivational pessimism, whereas others may not be. Another possibility implicates self-trust. For example, consider the phenomenon of precommitment, where we act to constrain our future behaviour by limiting our possibilities, such as when we empty the house of donuts after vowing to quit sugar. The difference between those who engage in precommitment and those who rely on willpower to achieve their goals may come down to self-trust. When we don't trust ourselves to do what is necessary to reach our goals, we reach for strategies of self-manipulation. Sometimes these strategies take the form of manipulating our environments (throwing away the doughnuts); other times, they may take the form of manipulating our mental states, as with motivational pessimism.

Philosophers have illuminated many underappreciated strategies through which self-control is achieved, for example, those that implicate environmental features (Levy, 2017) or social commitments (Hawley, 2020). Motivational pessimism represents yet another important strategy, used to avoid temptations to under-prepare or under-perform. Accordingly, an important task for philosophers of self-control is to illuminate the specific contexts under which negative beliefs bestow motivational benefits and the epistemic and moral implications of pursuing such a strategy.

I have focused on two examples of motivational pessimism (the comparative attractiveness and likelihood of failure biases). However, this discussion only scratches the surface; there are various other belief biases that might qualify. Further, carefully targeted experimental research is needed to place motivational pessimism on a firmer empirical footing and to identify further examples of it.

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