Stress and Anxiety Podcast Episode 5

<u>Podcast 5 – How understanding what's going on in our bodies, brains, and minds can help</u> <u>us to counteract stress and anxiety – 30 minutes</u>

In Podcast 1-4, we've thought about ways of defining and categorising stress and anxiety, some of the signs and symptoms to look out for in ourselves and others, and ways of thinking about common sources of these emotions. We've also thought about how most of us tend to react to stressful or anxiety provoking situations and how our early experiences can impact our current responses.

But now that we've thought about these aspects, how can we understand in more detail what is happening in our bodies and brains when we are experiencing stress and anxiety? And how can we use this understanding, in conjunction with what we've learned about our minds in Podcast 4, to counteract our in-built biological responses, so that we handle these emotions in a healthier and more constructive manner?

We can all sometimes get frustrated with ourselves for feeling overwhelmed and worried, wondering why we're not able to cope when other people seem to manage so much more easily, or telling ourselves that we used to be able to cope much better than we do now. But it's important to understand our basic body and brain reactions to stress and anxiety and how some of these responses might have been influenced by our previous experiences, not only at a psychological level, as we've seen in Podcast 4, but also at a physiological and neurological level, as we'll go on to see next. Understanding how all this works can help us to be less self-critical, and can also enable us to approach stress and anxiety in a more self-compassionate way. It can also help us to ensure that we give ourselves other, more positive experiences, so as gradually to re-train our bodies, brains, and minds to respond in more useful ways.

So let's start off in this podcast, then, by understanding, in more detail, what our basic physiological reactions to stress and anxiety actually are – in other words, what's going on in our bodies and brains which produces what we might term the 'stress and anxiety response'.

So our stress and anxiety response can be triggered when messages are relayed by our senses - mostly sight and hearing, although other senses might also be involved - and a part of our brain called the amygdala decides to interpret these messages as indicating danger. The amygdala is a primitive part of the brain that is involved in threat detection and emotional processing, but just because the amygdala decides that a situation is dangerous doesn't mean that the sights, sounds, and other stimuli it is interpreting *are* objectively dangerous. What is key here is that the way our amygdala decides to interpret the stimuli that reach it is based on our previous experiences. But if our amygdala receives messages that it decides to interpret as dangerous, then it sends an alert to the hypothalamus, which essentially operates as the command system for our autonomic nervous system. And as you might be aware, our autonomic nervous system controls functions such as heart rate, blood pressure, and breathing, and comprises the sympathetic nervous system, which helps to give us a burst of energy when we need it, and the parasympathetic nervous system, which calms things down afterwards.

Once the hypothalamus receives an alert from our amygdala, it activates the sympathetic nervous system to send signals via the autonomic nervous system to the adrenal glands, which pump adrenaline into the circulatory system. Adrenaline is also known as epinephrine, and you might have heard of this in the context of epi-pens, for example, for the emergency treatment of anaphylaxis. This shot of adrenaline from our adrenal glands makes the heart beat faster, putting up our blood pressure so that blood is pushed out to the muscles and vital organs (enabling us to run or fight if there is an external, physical threat) but also ensuring that blood is directed away from physical processes that are not immediately essential - such as digestion, which is why, when you're stressed or anxious, you might get a knot or butterflies in your stomach - or reproduction, which is why you might lose your libido. This shot of adrenaline also increases the tendency of our blood to clot (essential if you are injured in a physical fight), and opens up small airways in the lungs so that we can maximise the amount of oxygen in our system (again useful for our major muscle groups for running away or fighting back). The extra oxygen also goes to the brain, so we are more alert, and our senses of sight and hearing also temporarily become much sharper, so we can focus better on the immediate threat in front of us, but can also shut out any peripheral stimuli. This is why, if you have a particularly stressful or anxiety inducing experience, you might only remember very particular details of the immediate situation, rather than the whole scenario, or what happened before or afterwards. The adrenaline also releases glucose and fat from the body's temporary storage sites, supplying the body and brain with additional energy and nutrients.

This whole chain reaction is what many of us know as the 'fight or flight' response, and it happens so quickly that it is usually activated even before the visual centres in the brain have had a chance to register fully what is happening – an experience many of us will have had when our bodies respond to physical danger before we've even really properly seen it or taken it in. Hence we flinch, for example, if we see something coming towards us very fast, even before we really know what it is. You might also have come across

noradrenaline, which is mainly a neurotransmitter rather than a hormone, but which has similar overall effects in the brain to the effects of adrenaline in the body.

Once the initial adrenaline shot has subsided, our hypothalamus activates the second line of the stress response system, called the HPA axis. This comprises the hypothalamus, the pituitary gland, and the adrenal glands. If the brain continues to receive danger signals, the hypothalamus stimulates the adrenal glands to go on producing cortisol which, among other things, increases appetite to maintain energy levels (which is why some people eat more when they're stressed, or just want sugary junk food). Cortisol also keeps the body on high alert, ready for action. Once the danger has passed, the parasympathetic nervous system - the 'rest and digest system' - kicks in and gradually calms the 'fight or flight' response back down again – that feeling many of us will have had when we are suddenly exhausted or hungry after an exam, say, or an extended period of stress.

The other thing that can sometimes happen, though, is that rather than fight or flight, we go into what is called the 'freeze' or 'fawn/friend' response – other basic physical reactions which, in situations of extreme threat, can help us to survive. In the 'freeze' response, we might go extremely pale, our heart rate might slow right down, we might feel stiff, cold, numb, or heavy, and we might feel a sense of dread – essentially, then, our body is playing dead, making us less attractive as potential prey. In the 'fawn/friend' response, we might become extremely co-operative and apparently helpful, even if we don't consciously want to be. This is why some people might find themselves, when under an extreme anxiety or stress situation, unable to move or react in any way, or as a last resort, might find themselves becoming submissive, not because they don't want to fight or run, but because their amygdala has taken over and they literally have no control at this point over their physical reactions. So if you've had this 'freeze', 'fawn/friend' response in reaction to an extremely stressful or anxiety provoking situation, please don't blame yourself for it – it's your basic biological responses taking over in a manner over which you won't have had any conscious control.

Now these 'fight', 'flight', 'freeze', and 'fawn/friend' responses all make sense when we're faced with a physical threat – they're what we're designed to do under physically threatening circumstances – but the thing is, these processes can also happen when we are faced with an emotional or mental threat, too. Moreover, they can also occur when we even just imagine or visualise a physical, emotional, or mental threat, too. We would originally have rid ourselves of all that adrenaline, noradrenaline, and cortisol coursing through our systems by running away or fighting, breathing hard, then resting and recovering afterwards, or by playing dead or submissive until the threat has passed, then perhaps becoming shaky and tearful as we are recovering afterwards. But when these

processes are triggered by an emotional or mental threat rather than a physical one, there aren't necessarily the same opportunities to get rid of all the hormones and neurotransmitters that are circulating round our systems, in the same way. Moreover, these processes are often getting triggered in our modern lives far more than they were originally designed to, as what might have been relatively infrequent physical threats have gradually been superseded, in contemporary existence, with far more frequent mental and emotional ones. And if they get repeatedly triggered by anxiety-provoking or stressful experiences or by lack of containment when we are babies or small children, in particular, then the neurological pathways that get laid down can result in more easily triggered responses getting 'hard wired', as it were, into our brains. The good news is that, although they tend to become less malleable with age, our brains can nevertheless be 're-wired' to some extent, even when we are older, by repeated experiences of a helpful nature. The saying, 'neurones that fire together wire together' is a good way of reminding ourselves of the importance of giving ourselves ongoing positive emotional experiences and of seeking them from others.

So how can we use our understanding of our basic physiological reactions to stress and anxiety to handle our responses, and why is it important to do so? Well essentially, what we need to be able to do when our 'fight', 'flight', 'freeze' or 'fawn/friend' responses get triggered too easily or have got a bit stuck in the 'on' position is to activate consciously and deliberately our parasympathetic 'rest and digest' system, so that we can retrain our brains to dampen down our sympathetic nervous system responses when we need to. We know, for example, that if we have experienced a lot of stressful or anxiety inducing events, particularly in childhood, it can impact the structure, size, and reactivity of the amygdala. In other words, our previous experiences can make our amygdala more sensitive and more easily triggered, even by events and experiences that are not objectively that stressful or anxiety provoking now or that we just don't remember consciously at all. If you are autistic, you might also be far more sensitive to external and internal stimuli, perhaps finding certain kinds of lighting, noise, touch, texture, smells, movement, or eye contact particularly triggering. You might also be more aware than others of internal sensations such as various bodily functions going on. Or maybe you process one sort of sensory stimulation in terms of another (some people, for example, might see particularly shapes in relation to specific sounds - a process known as synaesthesia). Conversely, you might find that you are less aware of particular stimuli than others, or that these sensory sensitivities vary across time and context. And if you have ADHD, for example, then you might also be more sensitive to particular types of stimuli, and one of the things that you might have learned growing up or currently be learning now is how to handle these stimuli

to help you manage effectively on a day to day basis with executive function (that is, things like impulse control, organisation, task completion, focus, and motivation).

Because of the impact of stress and anxiety on our brains and bodies, we know that excessive long-term stress and anxiety have potential implications for heightened susceptibility to mental health problems such as depression, and can also lead to long-term physical health problems, such as high blood pressure or cholesterol, hormonal issues, and type two diabetes, as we get older. Outlining how bad excessive stress and anxiety can be for you is not intended to alarm or frighten you, and a bit of occasional tension or worry probably isn't going to do you too much harm, but learning how to deal constructively with disproportionate stress and anxiety, and preventing them from becoming a chronic and long-term condition, will not only help you to feel happier in the short term, but will also hopefully provide you with some physical and mental health benefits in the longer term, too.

So, bearing in mind what we have learned so far about the brain, body, and mind's stress and anxiety responses, what helps with stress and anxiety, and why? Here are ten things that you might want to try.

1. Make sure that you get the right amount of good quality sleep for you – everyone is different, but the evidence suggests that any less than six hours a night in young people is likely to lead in the longer term to mental health difficulties – and an average of somewhere between seven to ten hours is probably right for most people. Research also shows that in adolescence, we really do need more sleep and are programmed to stay up later than older adults. Nevertheless, it can be helpful to focus on getting to bed at a regular time. Everyone has the occasional late night, of course, but try not to do this too often in the same week and in particular, do try to ensure that you get up at a regular time each day, even if you've gone to bed later or haven't slept well and are feeling tired the next morning. Going for a walk to get some daylight within two hours of waking up the next day is also proven to be helpful for setting your circadian rhythm -that is, the internal body clock that influences your sleep-wake pattern. This is because early morning light sends signals to a region of your brain called the suprachiasmatic nucleus, which stops the production of melatonin (the 'sleep hormone') in the morning, but also results in melatonin levels starting to rise again around 12 hours later, making you gradually feel ready for sleep by bedtime. It's also important that, if you wake up in the night and can't get back to sleep, you actually get out of bed and do something relaxing like reading a novel, knitting, or listening to soothing music for a bit in a low light until you feel sleepy again (definitely no work or screens!), so that your brain associates your bed with sleep, rather than with being awake. Make sure you're comfortable and warm (but not too hot), and if you like milk, then

having a warm milky drink can also be helpful for some people. If you have difficulties with sleep, you might like to listen to the University Counselling Service podcast on this topic, or to listen to something like the Dr. Michael Mosley's Sleep Well podcasts or the Deep Calm or Deep Sleepscapes podcasts on the BBC Sounds app.

2. The second thing that you might find helpful is to try to eat healthily at regular intervals during the day, ideally going for three meals a day, with snacks in between, and avoiding too much sugar or junk food, and sticking to healthy foods, with a balance of protein, carbohydrates, and plenty of fresh fruit and vegetables, whilst cutting down gradually on caffeine and alcohol and increasing the amount of water you drink. Whilst this might be easier said than done, making one realistic change at a time is usually the way to go, rather than trying to implement a big new healthy eating regime all at once. The NHS website has some useful tips if you search for 'NHS healthy diet', and the BBC Sounds series 'Just One Thing' has lots of helpful suggestions for making small but fun changes to your lifestyle in a sustainable manner. And remember, eating regularly isn't just a physical thing, but an emotional experience, too. Hopefully, if we were fed regularly as babies, then feeding ourselves regularly as adults can also feel comforting at a very fundamental level.

3. The third thing that you might want to do is to think about how you relate to your own personal physical responses to stress and anxiety, as this might change the way you experience the physical symptoms themselves. We often feel fearful when we experience physical symptoms of stress and anxiety, such as an increased heart rate or breathing more rapidly, and this can lead to us exacerbating our stress and anxiety response when we tell ourselves things such as, 'This is dangerous', 'I feel as if I'm having a stroke or a heart attack', or 'I can't breathe'. Or maybe we tell ourselves, 'This will just get worse and worse', or 'I have to leave or lie down'. But it's important to remember that if you have an easily triggered stress and anxiety response, then feeling that a situation is dangerous doesn't necessarily mean that the situation objectively is dangerous. So it's worth taking a reality check and, as long as the situation isn't actually dangerous, recalibrating by giving yourself an alternative, more realistic message about what is really going on. This might be something such as, 'This is my amygdala over-reacting', or 'This is my body trying to keep me safe', or 'Just because it feels dangerous doesn't mean it actually is'. Or maybe you could tell yourself something like, 'I feel as if I can't breathe but I know it's my brain's way of trying to get more oxygen to my muscles', or 'I'm noticing this situation feels horrible and I want to get away from it but as there is no actual danger, I know that if I wait, the feeling will pass'. This last example is particularly important because, if we get into the habit of always avoiding or leaving stressful or anxiety inducing situations as soon as we experience uncomfortable physical sensations, we never actually get the opportunity to

discover that they will pass and that the stress or anxiety provoking situation is, in fact, reasonably manageable.

Of course, you need to use your common sense here, so if, for example, you have asthma, or a family history of stroke or heart disease, or there is some other medical condition in your family that might mean that you are at more medical risk, then you need to take the appropriate action. If you're not sure, then talking to your College doctor or GP might put your mind at rest. So it's not about taking risks if the situation is potentially dangerous, and indeed, there are times when using our gut feelings or intuition can be important. But if you have an overly reactive amygdala or over-sensitive gut reaction, then it's worth checking in with others you trust, if you can, about whether a situation is actually dangerous , and recognising that, as long as a situation isn't actually risky, then it can be helpful to try and give yourself more helpful and realistic messages.

4. Fourth, we know that the 'fight/flight' response is preparing us for physical exertion (fighting or running away), so it won't surprise you to learn that physical exercise is particularly helpful for dealing with stress and anxiety. Within reason, it doesn't really matter what kind of exercise you do, as long it doesn't make you feel more stressed or worried than you were to start with, and the main thing is to do something you enjoy or that you are at least finding tolerable, so that you do it on a regular basis. You might, however, want to avoid extreme sports or activities such as cage fighting, for example, which might exacerbate an already over-sensitive 'fight or flight' response, and you don't have to play a team sport if that's not your thing. But something which involves raising your heart rate (and then, of course, lowering it again) is usually helpful, not only because it assists with dissipating some of those stress and anxiety hormones we've been thinking about, but because it also improves heart rate variability, which is linked to getting a healthy balance between your sympathetic and parasympathetic nervous systems.

So whether it's going for a 10 minute walk round the block, joining a walking group at the weekends, going to a yoga or salsa class, learning rock climbing, going swimming, taking up rowing or running, playing squash, football, cricket or lacrosse, going to the gym or learning to fence, it really doesn't matter, as long as you're active. If you don't always feel like going outside, you might even just like doing some online exercises in the privacy of your own bedroom. Of course, if you have a pre-existing health condition, you haven't exercised for a long time, you're very overweight, have an injury, or there's another reason why sudden exercise might not be helpful for you, then you should always check with your College doctor or GP before starting a new exercise programme, and it's always best not to overdo it initially. Otherwise, just try to start with something small, achievable, and enjoyable, and build up gradually from there. If you're not sure where to begin, just

searching for 'NHS exercise' in your browser is a good place to start looking for safe and effective exercise programmes or - if you prefer to exercise with others - you could explore your College gym, contact the University Sports Centre, or have a look at the Student Union's list of clubs and societies. Do try not to be over-ambitious to start with, though, as something small that you can keep doing several times a week is far more effective than a few days of over-exerting yourself, feeling defeated, and then giving up.

5. A fifth thing to have a go at is trying to make time to relax regularly away from screens for at least a few minutes each day, but also for a longer period at least once a week. Engaging in a hobby that you enjoy, whether that's learning a language, playing a musical instrument, doing arts or crafts such as drawing, painting, knitting or crocheting, or doing something more practical such as baking, cooking, listening to music, journaling, reading a novel, or playing board games, is usually going to be helpful to you. It doesn't matter if you're not good at it, as long as it enables you to get into a state of mind where you feel really absorbed in what you're doing in an enjoyable way. This is when you will be most likely to be in what is called a 'flow state', which is when the default mode network in your brain - that is, the network of structures that helps you to reflect on your feelings and come up with creative ideas - will be processing emotions without you even being aware of it. For some people, even taking a few extra minutes to have a long shower or a relaxing bath will enable them to get into this state of mind, while for others, staring into space and daydreaming for 5-10 minutes at a time can be helpful. You might be familiar with the experience of having some of your best ideas in the bath or when staring out of the window on a train, when you are in this slightly dreamy mode, as that's when your mind is now thought to be most able to make creative connections. So as long as you're somewhere safe and comfortable, feel free to daydream for a bit each day, whether you're on the bus or going for a morning walk, and just allow your mind to relax and wander.

6. There's also some evidence to suggest that regular exposure to nature or green spaces is helpful for stress and anxiety, reducing blood pressure, heart rate, and cortisol levels, and also boosting the body's immune system. This might be because nature involves fractals - a type of repeating pattern that creates a visually complex whole which is very calming to the human brain (think snowflakes or leaf patterns), but it might also possibly be because of various soil microbes and anti-microbial compounds released by plants. Natural sounds like birdsong, streams, or waterfalls are also thought to have a positive effect, too, although the exact reasons as to why being in nature is good for stress and anxiety are not yet fully understood. You might want to consider joining a local or national walking group, or attending a wellbeing walk organised by your College or the Library, or just going for a walk by yourself, as long as it's in a place and at a time you know you'll be safe.

7. Make time for enough socialising for you. There is no right or wrong as to how often this might be, as everyone is different. Besides, some weeks you might feel more sociable than others, but the key thing is to ensure that you feel you are socially connected enough not to feel isolated or excluded, as we know that social isolation can be a major contributor to stress and anxiety, even if often at an unconscious level. So try to ensure that you keep in touch with any existing friends, but also give yourself regular social opportunities to make new ones. Whether that's attending College events or going to a student club or society, joining an evening class or going out with a walking group at the weekend, or just going to the same café or library on your own at a regular time each week, ensure that you have enough social contact for you, and if you find socialising difficult, or suffer from social anxiety, then try setting yourself small but manageable challenges and building up social contact gradually. This might include attending an event for 10 minutes then going home again, or going to an event or smiling or saying hello to just one person. You could then focus on being politely curious about the person you're talking to, asking them open questions and perhaps concentrating on listening well. Try not to feel that you have to think of something to say, talk about yourself, or impress anyone. And remember that, although Oxford can involve a lot of socialising and networking if you want it to, it's certainly not compulsory, and although a network of acquaintances can sometimes be helpful professionally in the longer term, what you might want to focus on initially is turning some of your casual acquaintances into a small circle of friends you feel you enjoy being with and find you can rely on. Perhaps you could build deeper relationships by starting off asking one person to join you for a coffee at a favourite café or common room and then, once you have done this with a few people and are feeling more confident, you might want to organise a small group walk or cinema trip, or invite a few people round for brunch on a Saturday morning, or tea and cakes one afternoon.

8. Make sure that in terms of work, you're being realistic about the demands you're making on yourself, and ensure that you cover the five life essentials of eating, sleeping, exercising, relaxing, and getting at least some social contact first, and then fit your work around these, not the other way round. Ensure that you work regularly with sufficient short breaks to work efficiently – so working for 30-45 minutes followed by a 10-15 minute break, with regular longer breaks for meals, for example, is one pattern that can be helpful for some people. But above all, ensure that you work out when it is that you work best, and use times when you're less naturally focussed for other activities, such as shopping, getting the washing done, cooking, exercising, or just unwinding.

And if you find it hard to get started on work, try the 'five minute rule' of doing something easy to start off with, and telling yourself that if you really hate it, you can then swap to another work activity, and go back to the first one after a further five minutes. Remember, too, that it's not just 'productivity' that matters – after all, you're not a factory or a machine – but that creativity - having ideas, making connections, thinking originally – matters as well. You're probably always going to have more work than you do time, but if you're working regularly and efficiently, and putting in a reasonable number of hours whilst striking a balance with the five life essentials outlined previously, then there might just be times when you have to recognise that you can't do everything, and you certainly can't do everything perfectly. So once you've highlighted your basic needs, it's a question of prioritising what you most need to focus on workwise, and then recognising that, if you're going to get through at least the majority of your work, you might have to do some of it to a lower standard than you might ideally wish to.

9. Although not everyone can see pictures in their minds (a phenomenon known as aphantasia), if you are someone who does see things in their mind's eye, you might also want to practise visualising. There is some evidence to suggest that using your imagination to visualise the successful outcomes that you desire – going to that College event and chatting to one or two people without feeling panicked, handling that upcoming exam calmly, asking a question in your tutorial without feeling overwhelmed, getting your essay in on time without a sleepless night - can be helpful in enabling you to achieve this result. You might want to try imagining the outcome while breathing calmly and slowly, perhaps thinking about each step towards your goal and what it might look like. You might also find it helpful to visualise a place where you have felt happy, calm, and relaxed – perhaps a favourite location, such as a beach, a wood, or a meadow, or maybe a holiday, or even an event or day trip you particularly enjoyed. And to extend this, you might want to focus on imagining not only on what you can see, but also on what you can hear, smell, touch, and taste. This can be your 'calm place', which you can imagine whenever you start feeling anxious or stressed. If you are someone who doesn't see things in your imagination, you might want to think about recording a voice note of something you find it calming to say to yourself, or perhaps some music you find particularly relaxing. Either way, you might also just want to practise whatever it is you're feeling anxious or stressed about doing - walking to the exam hall in your sub fusc, for example, or sitting at your desk and then opening and working through some timed exam papers, or practising talking about something you find difficult to your pot plant, perhaps noticing how you're feeling, what's going on in your body and mind, and adjusting your breathing accordingly. Don't worry if you feel a bit silly doing this - no-one need see you practising and you don't have to tell anyone about it if you don't want to. And at the very least, it might make you smile as you remember doing this when you go to that event or tutorial and do it for real. Remember, most things get easier with a bit of practice, and if you find something particularly anxiety provoking or stressful, then perhaps just arrange to do it for a short period the first few times if you can, and ensure

that you give yourself a small treat afterwards, even if it didn't go brilliantly, just to reward yourself for trying. Then build up gradually until you get used to whatever it is you're practising, or until you at least find it a bit more tolerable.

10. Tenth, and perhaps above all, make sure that you've got something fun or enjoyable to look forward to each day, however small that might be - with something bigger, perhaps, planned for the weekends and at the end of each term. Your reward doesn't have to be a huge thing, and it doesn't have to involve spending a lot of money – it might even just be looking at a website for a trip you're planning for next summer, or getting through a bit of that novel you've been meaning to read for ages. It might be spending a bit longer in the shower or having something particularly nice for supper. The main thing is that it is something to look forward to when you feel life is getting a bit on top of you.

So in this fifth podcast, then, we've thought about what's going on in your body and brain when you feel anxious or stressed, and a range of practical strategies that you can start to implement to address more immediate feelings of stress and anxiety. It's really all about getting to know your own body, mind, neurology, and sensory needs and working out what helps to make you feel comfortable and safe. Breathing well can make a big difference to how stressed and worried we feel, and as we've learned in the first podcast, using our breathing is one of the quickest and most effective ways of calming ourselves down. If you've skipped straight through to this fourth podcast, you might want to listen to the opening of each of the other podcasts in this series, where there is a different breathing exercise each time. You could also have a look at Dr. Rangan Chatterjee's book, *Feel Better in 5*, for further details of these kinds of breathing exercises. Or if you prefer to do them using a podcast to guide you, then you might like to have a listen to some of the podcasts at drchatterjee.com or to try the BBC Sounds 'Deep Calm' podcast series. If you're interested in the neuroscience, then you could also try the Huberman lab podcast on how to breathe correctly.

As ever, if you feel really stressed and anxious and overwhelmed to the point where you feel unable to function, then please do make an appointment to speak to your GP or College doctor, or in case of life threatening risk, go to the Accident and Emergency Department of your nearest hospital.

In the sixth and final podcast of this series, we'll focus on what really matters to you, your overall purpose in life, how to reduce your worries and micro-stressors without ignoring or repressing them, and how to put things into perspective when the going gets tough.