Supplementary material

1. Psychological questionnaires and manipulation check exit questions

1.1. Psychological questionnaires

A one-way ANOVA showed that there were no significant between groups differences in questionnaire scores (STAI-S-s $P = 0.16$, STAI-T $P = 0.29$, PCS $P = 0.41$, and FPQ-III $P = 0.81$). Cronbach's alpha in this study for the STAI-S-s was 0.81, for the STAI-T 0.88, for the PCS 0.83, and for the FPQ-III 0.87. Mean (SD) total scores on the questionnaires were as follows: STAI-S-s 33.7 ($SD = 9.9$), for the STAI-T 41.7 ($SD = 8.7$), PCS 15.5 ($SD = 7.1$), and FPQ-III 82.1 ($SD = 17.7$).

1.2. Manipulation check exit questions

Participants completed an exit questionnaire containing manipulation check questions. The questions were: "Did you believe the information you received during the study", "how honest did you think the researcher was", "how much did you care about what the researcher thought of you during the study", "how much did you focus on the heat tests during the study", "how much pain did you expect when the electrodes were active", "how afraid were you of the pain when the electrodes were active" fear, "how anxious or worried were you when the electrodes were active", and "how much did the skin sensitivity test frighten you". Questions were rated on a 0-10 NRS from "not at all" to "very much". All questionnaires were displayed on a computer monitor via web-based survey software (Qualtrics, Provo, Utah, USA).

We ran Pearson's correlations between the magnitude of nocebo hyperalgesia and manipulation check questions asked at the end of the experiment. The following responses where not significantly correlated with the magnitude of nocebo responses: Did you believe the information you were given during the study: $r = 0.16$, $P = 0.19$; How honest do you think the researcher was: $r = 0.09$, $P = 0.45$; Where you concerned about what the experimenter thought of you during the study: $r = -0.05$, $P = 0.69$; Did you change your responses to help the researcher: $r = 0.06$, $P = 0.61$; How focused were you on the heat tests: $r = -0.13$, $P = 0.26$

1.3. Questionnaires and nocebo responses

There was no significant correlation between the magnitude of nocebo responses and any relevant manipulation check questions or questionnaire scores (Reported anxiety about the nocebo trials: $r = -0.16$, $P = 0.09$; FPQ-III: $r = -0.07$, $P = 0.28$; PCS: $r = -0.01$, $P = 0.46$; STAI trait: $r = -0.03$, $P = 0.42$; STAI state: $r = -0.06$, $P = 0.32$). These non-significant results indicate that psychological characteristics and reported anxiety levels did not influence the magnitude of nocebo responses.

1.4. Questionnaires and fear responses

There was no significant correlation between reported fear and any relevant manipulation check questions or questionnaire scores (Reported anxiety about the nocebo trials: $r = 0.19$, $P = 0.06$; FPQ-III: $r = 0.03$, $P = 0.49$; PCS: $r = 0.05$, $P = 0.33$; STAI trait: $r = 0.07$, $P = 0.29$; STAI state: $r = -0.08$, $P = 0.47$). These non-significant results indicate that psychological characteristics and reported anxiety levels did not influence reported fear levels.

2. Pain calibration procedure

For the calibration of a low, a moderate, and a high pain intensity for each individual participant, participants received stimuli of varying intensities ranging from 41°C to 49.9°C. In a first calibration round, stimuli were gradually increasing in intensity, to make sure that no participant receives higher pain than they can tolerate. In a second calibration round, various pain stimulations are administered up to the maximum intensity that the participant could tolerate (e.g., a rating of 9). For participants that reported high pain at earlier temperatures in the first round, a lower one out of 6 pain stimulation series was selected. In each of these series of stimuli (that each went up to a higher peak temperature), it is ensured that no big temperature differences are present between stimulations and that all temperature levels are represented equally.

For example, if a participant completed round one up to 49.9°C they would receive the following series of temperatures: 45, 46, 43, 47, 49, 49.5, 49, 49.9, 48, 49, 49.9, 48, 47, 45.5, 48, 49, 49.9, 47. However, if a participant completed round one up to 47.5°C (i.e., reporting high pain at this temperature) they would receive the following series of temperatures 45, 46, 43, 47, 46.5, 46, 47, 47, 44.5, 45, 46, 46.5, 44, 47.5, 47, 46.5, 47.5, 45. These procedures ensure both the relative comfort of the participant and an optimal administration of pain stimulations for calibration purposes.

3. Instructions to participants for nocebo and fear manipulations

Nocebo manipulation instructions:

"We will test the effects of combining heat-pain with electrical stimulation. We already know from previous research that combining two types of stimulation worsens the pain that people feel. This is relevant for patients who suffer from a combination of multiple types of chronic pain or nerve damage, like arthritis patients. So, in this study we want to test this effect by combining heat-pain with light electrical pulses, that you can barely feel on your skin but still stimulate the nerves under your skin. Via two electrodes that I will attach to your arm, the device can send light electrical pulses that will stimulate your nerves and by doing so will increase your pain sensation. So, during the experiment, you will see messages on the screen. The message 'on' will show you that the electrodes are activated and will increase your pain. The message 'off' will indicate that the electrodes are deactivated and will not affect the pain that you feel. Now I will attach the two electrodes to your hand and arm. We will activate the electrical stimulation now, to calibrate an intensity of electricity that you cannot feel on your skin."

Threat manipulation instructions:

"We will do a skin sensitivity test. We will use a sensory-technology device that has a function that can scan your skin thickness and responsiveness via electrodes. This technique is called skin-sensor microscopy and it is a very accurate safety-check, to find out if your skin is suitable and if it is safe for you to receive the heat-pain stimuli. […] *Now we can do the skin-sensitivity measurement. I will attach the sensor electrodes to your fingers, where your skin is quite thin.* [Attach electrodes to the middle part of the non-dominant index finger and the tip of the thumb.]

Ok, now the device will start receiving and I can check your skin sensitivity on this screen. [Turn tablet to face participant]"

High-threat group instruction: *"This is not what I expected... We don't get this result often, but it happens. So, the test is detecting a lot of very sensitive superficial fibers in your skin and this does mean that you can very suddenly feel intense pain, especially because we combine it with electrical pulses that stimulate these same sensitive fibers. Your fibers seem to just be very responsive already. It is still safe for you to participate but we will need to keep an eye on this sensitivity because it can really suddenly increase your pain levels. I will just leave the sensors on for you, and I'll check it again later, but if you feel any sudden sharp or penetrating pain when the electrical device is on later, then please let me know straight away because the pain can suddenly become very severe. Please try to keep an eye on the scale yourself as well, just in case"*

High-pain group and Control group instruction: *"Great, everything looks fine. This is just a standard step we have to take, but there doesn't seem to be any issue. I'll just leave these attached during the experiment"*