

Ethical Review Application (ER/MB2021/2) Maisie Bennett

Project Title Validation of the MINT questionnaire
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Name of Funder

Ethical Review Application ER/MB2021/2 (continued)

Project Description

The present study is a online survey with the aim of validating a new interoceptive questionnaire, by looking at its correlations with other interoceptive scales, traits and disorders. The survey will contain the following parts:

1. Study information and consent form.
2. Standard demographic questions (age, gender, educational level).
3. 12 Questionnaires (MINT; 3 Interoception questionnaires; 4 Trait questionnaires and 4 disorder questionnaires).
4. Physical exercise and wearables questions.
5. Feedback and Debriefing information.

Consent form

At the beginning, participants will be shown information about the study's goal (no deception will be involved).

The page also emphasizes that their response and participation will be kept confidential and entirely anonymous (no IP addresses are collected).

Participant's data is saved only at the end of the study (giving them a chance to retract their participation till the end).

Demographic information

Participant will then answer a few demographic questions designed to better identify the characteristics and representativeness of the sample (age, sex, education level, ethnicity, country of current residence). No IP addresses will be collected, and the deanonymized data with identifiers, will be stored on a University Box only accessible to the researchers.

Questionnaires

Participants will be informed that the study aims to validate a new Interoception questionnaire and that it includes attention-check items. They will be advised that failing these checks may result in withholding their rewards (e.g., credits or payment).

* Interoception questionnaires: MAIA-2 (Mehling et al., 2018); IAS (Murphy et al., 2020) ; BPQ-VSF (Brand et al., 2024)

* Trait questionnaires: TAS20 (Bagby et al., 1994) ; CERQ (Saetren et al., 2025), B-ERS (Veilleux et al., 2024), and PI18 (Clifton, 2019)

* Disorders: PHQ4 (Kroenke et al., 2009) + life satisfaction question; CEFSAS-S (Cernis et al., 2024), Mental Health, and Psychosomatic Disorders.

The sequence always begins with the MINT questionnaire, followed by a trait questionnaire-disorder questionnaire or disorder-trait pairing. Subsequent rounds consist of one interoception questionnaire followed by a trait-disorder or disorder-trait pairing. All questionnaires, except the MINT, are randomised within their categories.

Feedback & Debriefing

Participants will be asked if they enjoyed the survey and whether they have any thoughts they want to share. Lastly, a debriefing screen will appear with the aim of the survey explicit (e.g., validation of a new questionnaire) and more information regarding Interoception is given alongside a reminder that data is anonymised.

Participants

Participants will be recruited via convenience sampling (e.g., via social media), or via other recruitment platforms if available (e.g., SONA, Prolific).

The samples from different methods of recruitment will be collected separately in case they are different (the incentive type - e.g., student credits - and amount - or lack thereof - will thus be known to mitigate its potential effect). As we aim at recruiting a diverse sample, there are no exclusion criteria.

Risks

There are no risks involved in this study.

Ethical Review Form Section A (ER/MB2021/2)	
Question	Response
>> Checklist	
A1. Will your study involve participants who are currently or potentially vulnerable or unable to give informed consent or in a dependent position (e.g. people under 18, people with learning difficulties, over-researched groups or people in care facilities)?	No
A2. Will participants be required to take part in the study without their consent or knowledge at the time (e.g. covert observation of people in non-public places), and / or will deception of any sort be used? Please refer to the British Psychological Society Code of Ethics and Conduct (or similar guidelines) for further information.	No
A3. Unless specifically and clearly consented (e.g. a media release form), will it be possible, through a research output, to identify participants in any way? (This does not include taking email details for participant prize draws or identifying participants from signed consent forms or holding identity encryption spreadsheets that are stored securely separate from the research data).	No
A4. Might the study induce psychological stress or anxiety, or produce humiliation or cause harm or negative consequences beyond the risks likely to be encountered in the everyday life of the participants?	No
A5. Is there a risk that the research topic might lead to disclosures from the participant concerning their beliefs, involvement in illegal actions or any other activities that may represent a threat to themselves or others?	No
A6. Will the study involve collecting any personal special category information* in a form that could allow the participant/participants to be identified? [* identifiers relating to race, ethnic origin, politics, religion, trade union membership, philosophical beliefs, genetics, biometrics, health, sex life or sexual orientation]	Yes
A7. Will any drugs, placebos or other substances (such as food substances or vitamins) be administered as part of this study and will any invasive or potentially harmful procedures of any kind will be used?	No
A8. Will your project involve working with any substances and / or equipment which may be considered hazardous?	No
A9. Will your study involve the taking and/or storage of human tissue that falls under the Human Tissue Act (HTA)? http://www.sussex.ac.uk/staff/research/governance/erp_overview/humantissue	No
>> Risk Assessment	

A10. If you have answered Yes to ANY of the above questions, your application may be considered as HIGH risk. If, however you wish to make a case that your application should be considered as LOW risk please enter the reasons here. Researchers should note that SREOs or C-RECs may decide NOT to agree with the case that you have made.	Participants will be asked to report on their race, gender, age, educational level, ethnicity, and the country of current residence. However, all the data will be anonymised and their participation will be kept confidential (ie., no recording of IP address).
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Ethical Review Form Section B (ER/MB2021/2)	
Question	Response
>> Data Collection and Analysis (Please provide full details)	
B1. PARTICIPANTS: How many people do you envisage will participate, who are they, and how will they be selected?	Study will attempt to recruit a minimum of 300 participants (based on typical samples of similar studies), with no exclusion criteria.
B2. RECRUITMENT: How will participants be approached and recruited?	Participants will be recruited via recruitment platforms (e.g., SONA, Prolific). The samples from different methods of recruitment will be collected separately in case they are different (the incentive type - e.g., student credits - and amount - or lack thereof - will thus be known to mitigate its potential effect).
B3. METHOD: What research method(s) do you plan to use; e.g. interview, questionnaire/self-completion questionnaire, field observation, audio/audio-visual recording?	Online survey.
B4. LOCATION: Where will the project be carried out e.g. public place, in researcher's office, in private office at organisation?	The survey will be completed online.
B5. PARTICIPANT WELLBEING: Will the study involve engaging participants in the discussion of potentially distressing or sensitive topics? (e.g. sexual activity, drug use, ethnicity, political behaviour, potentially illegal activities). If so, please set out how you will manage the well-being of participants.	No.
>> Confidentiality and Anonymity	
B6. Will questionnaires be completed anonymously and returned indirectly?	Yes
B7. Will research data only be identifiable by a unique identifier (e.g. code/pseudonym)? If Yes, please explain how this will be attributed in B11a below.	Yes
B8. Will lists of identity numbers or pseudonyms linked to names and/or addresses be stored securely and separately from the research data? If Yes, explain how this will occur in B11a below.	N/A
B9. Will all place names and institutions which could lead to the identification of individuals or organisations be changed unless this is consented to explicitly in the consent form?	Yes
B10. Will all personal information gathered be treated in strict confidence and never disclosed to any third parties?	Yes
B11. Can you confirm that your research records will be held in accordance with data protection regulations? (http://www.sussex.ac.uk/ogs/policies/information/dpa)	Yes
B11a. Please explain how ANY identifiable personal and/or research data will be managed and securely stored ensuring that participants have given appropriate informed consent for this.	Survey is anonymous so name will not be collected. Deanonymized data is stored privately on university Box.
B12. Do you intend to use the research data for any purpose other than that for which consent is explicitly given? If so, please explain below	No

B12a. If you answered NO to any of the above in this section (or think more information could be useful to the reviewer) please explain here:	Potential for anonymous data sharing is included in the consent.
>> Informed Consent and Recruitment of Participants	
B13. Will all respondents be given an Information Sheet and be given adequate time to read it before being asked to agree to participate?	Yes
B14. Will all participants taking part in an interview, focus group, observation (or other activity which is not questionnaire based) be asked to sign a consent form? If you are obtaining consent another way (such as verbally), please explain under B17 below.	N/A
B15. Will all participants self-completing a questionnaire be asked to show consent to participate by a specific and identifiable action? (Give details in B17 below)	Yes
B16. Will all participants be told that they can withdraw their participation at any time during the research and can ask for their data to be destroyed and/or removed from the project until it is no longer practical to do so?	Yes
B17. If you answered NO to any of the above in this section (or think more information will be useful to the reviewer) please explain here:	Participants will be asked to click a box informing consent for the study.
>> Context	
B18. Is DBS (Disclosure and Barring Service) clearance necessary for this project? If yes, please ensure you complete the next question.	No
B19. Are any other ethical clearances or permissions (internal or external) required? Please see the help text (i) for further details.	No
B19a. If yes, please give further details including the name and address of the organisation. If other ethical approval has already been received please attach evidence of approval, otherwise you will need to supply it when ready. (You do not need to provide evidence of a current DBS check at this point).	
B20. Does the research involve any fieldwork - Overseas or in the UK?	No
B20a. If yes, where will the fieldwork take place? If undertaken overseas you must attach an OTSSRA form. In the event that the Foreign and Commonwealth Office has specific travel warnings in place for the country (ies) to be visited you will also need to provide a detailed risk assessment. https://www.gov.uk/foreign-travel-advice	
B21. Will any researchers be in a lone working situation?	No
B21a. If yes, briefly describe the location, time of day and duration of the lone working. What precautionary measures will be taken to ensure safety of the researcher(s)?	
>> Any further concerns	
B22. Are there any other ethical considerations relating to your project which have not been covered above?	No

B22a. If yes, please explain:	
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Informed Consent

Invitation to Take Part

Thank you for considering to take part in this study conducted by Dr Dominique Makowski from the University of Sussex and his team (see contact information below).

Why have I been invited and what will I do?

The aim of this study is to validate a new questionnaire measuring Interoception. Interoception refers to the sensing, interpretation and processing of internal bodily signals (e.g., feeling changes in the way one's heart beats). The whole experiment will take you **~30 min** to complete. Please make you sure that you are **attentive and in a quiet environment**, and that you have time to complete it in one go.

What will happen to the results and my personal information?

The results of this research may be written into a scientific publication. Your anonymity will be ensured in the way described in the consent information below. **Please read this information carefully** and then, if you wish to take part, please acknowledge that you have fully understood this sheet, and that you consent to take part in the study as it is described here.

Consent

- I understand that by signing below I am agreeing to take part in the University of Sussex research described here, and that I have read and understood this information sheet
- I understand that my participation is entirely voluntary, that I can choose not to participate in part or all of the study, and that I can withdraw at any stage without having to give a reason and without being penalized in any way (e.g., if I am a student, my decision whether or not to take part will not affect my grades).
- I understand that since the study is anonymous, it will be impossible to withdraw my data once I have completed it.
- I understand that my personal data will be used for the purposes of this research study and will be handled in accordance with Data Protection legislation. I understand that the University's Privacy Notice provides further information on how the University uses personal data in its research.
- I understand that my collected data will be stored in a de-identified way. De-identified data may be made publicly available through secured scientific online data repositories.
- By participating, you agree to follow the instructions and provide honest answers. If you do not wish to participate or if you don't have the time, simply close your browser.

For further information about this research, or if you have any concerns, please contact Dr Dominique Makowski (D.Makowski@sussex.ac.uk) and/or Ana Neves (A.Neves@sussex.ac.uk). This research has been approved (ER/EB672/2) by the Sciences & Technology Cross-Schools Research Ethics Committee (C-REC) (crecscitec@sussex.ac.uk). The University of Sussex has insurance in place to cover its legal liabilities in respect of this study.

I read, understood, and I consent

About yourself



What is your gender?*

Male Female Other

Please enter your age (in years)*

e.g., 21

Next

About yourself



What measurement do you use for height?

Centimetres

Feet

What measurement do you use for weight?

Kilograms

Stones

Previous

Next

About yourself



What is your highest completed education level? *

- University (doctorate)
- University (master)
- University (bachelor)
- High school / Secondary school (or 6th form college)
- Elementary school / Primary school
- Other

Are you currently a student? *

Yes No

Previous

Next

About yourself



How would you describe your ethnicity?

White

Black

Hispanic/Latino

Middle Eastern/North African

South Asian

East Asian

Southeast Asian

Mixed

Prefer not to say

Other

In which country are you currently living?

e.g., France

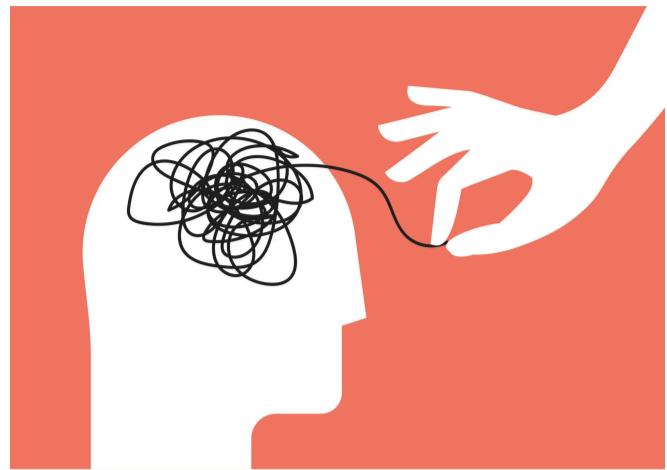


Previous

Continue

Instructions

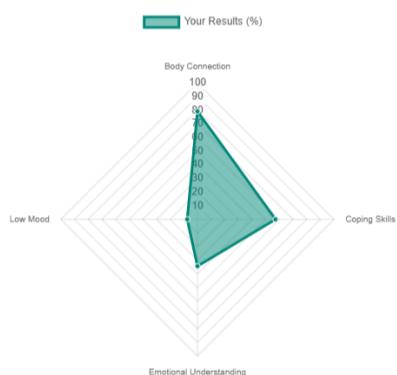
In this study, you will be asked to complete various questionnaires. Please read each question carefully, and don't hesitate to take breaks in-between them.



Please note that **various checks will be performed to ensure the validity of the data**. We reserve the right to withhold credit awards or reimbursement should we detect non-valid responses (e.g., random patterns of answers, instructions not read, failed attention checks...).

We are aware that answering these questionnaires **might feel long and repetitive**, but having similar questions is necessary to ensure the validity of the results (we expect similar questions to be related, and opposite questions to be inversely related).

At the end, you will be shown a **graph** summarizing your answers, and provided with an explanation about why we are asking all of this.



Example of result graph obtained at the end

Let's start

Body awareness

Please rate your awareness on each of the characteristics described below. Select the answer that most accurately describes you.

During most situations, I am aware of the following...

Goose bumps.*

Never 1 2 3 4 5 Always

My mouth being dry.*

Never 1 2 3 4 5 Always

How hard my heart is beating.*

Never 1 2 3 4 5 Always

Respond all the way to the right.*

Never 1 2 3 4 5 Always

Stomach and gut pains.*

Never 1 2 3 4 5 Always

Stomach distension or bloatedness.*

Never 1 2 3 4 5 Always

Muscle tension in my arms and legs.*

Never 1 2 3 4 5 Always

A swelling of my body or parts of my body *

Never 1 2 3 4 5 Always

An urge to swallow.*

Never 1 2 3 4 5 Always

The hair on the back of my neck 'standing up'. *

Never 1 2 3 4 5 Always

Tremor in my lips.*

Never 1 2 3 4 5 Always

How fast I am breathing.*

Never 1 2 3 4 5 Always

A bloating feeling because of water retention.*

Never 1 2 3 4 5 Always

Complete

About your experiences

Please read the following items and rate how often you have experienced these over the past **two weeks**

Please note that this should **NOT** be whilst under the influence of drugs, alcohol or legal highs.

I find myself drifting off into my own world when I'm with others *

Never 0 1 2 3 4 Always

I feel like an alien or a ghost *

Never 0 1 2 3 4 Always

Things I've done many times before seem new or unfamiliar *

Never 0 1 2 3 4 Always

My body feels numb *

Never 0 1 2 3 4 Always

I feel detached from my emotions *

Never 0 1 2 3 4 Always

My personality changes seemingly at random *

Never 0 1 2 3 4 Always

I'm absorbed in my own world and don't notice what is happening around me *

Never 0 1 2 3 4 Always

People I know seem unfamiliar *

Never 0 1 2 3 4 Always

I feel disconnected from the world around me *

Never 0 1 2 3 4 Always

My body (or parts of it) feels unreal or strange *

Never 0 1 2 3 4 Always

I don't fully experience emotions *

Never 0 1 2 3 4 Always

I feel disconnected from other people *

Never 0 1 2 3 4 Always

I feel that to show I'm being attentive I will press the lowest option *

Never 0 1 2 3 4 Always

I act like someone else without meaning to *

Never 0 1 2 3 4 Always

I feel as though other people stop existing when I can't see them *

Never 0 1 2 3 4 Always

Complete

About your emotions

Please indicate how often you think in the following ways when facing intense, threatening or stressful situations

I think that it hasn't been too bad compared to other things *

Almost never

1 2 3 4 5

Almost always

I think that I have to accept that this has happened *

Almost never

1 2 3 4 5

Almost always

I feel that others are responsible for what has happened *

Almost never

1 2 3 4 5

Almost always

I think about a plan of what I can do best *

Almost never

1 2 3 4 5

Almost always

I tell myself that there are worse things in life *

Almost never

1 2 3 4 5

Almost always

I often think about how I feel about what I have experienced *

Almost never

1 2 3 4 5

Almost always

I think that I can become a stronger person as a result of what has happened *

Almost never

1 2 3 4 5

Almost always

I think of pleasant things that have nothing to do with it *

Almost never

1 2 3 4 5

Almost always

I think that basically the cause must lie within myself *

Almost never 1 2 3 4 5 Almost always

I am preoccupied with what I think and feel about what I have experienced *

Almost never 1 2 3 4 5 Almost always

Think of something nice instead of what has happened *

Almost never 1 2 3 4 5 Almost always

I feel that basically the cause lies with others *

Almost never 1 2 3 4 5 Almost always

I think about how to change the situation *

Almost never 1 2 3 4 5 Almost always

I think I can learn something from the situation *

Almost never 1 2 3 4 5 Almost always

I keep thinking about how terrible it is what I have experienced *

Almost never 1 2 3 4 5 Almost always

I continually think how horrible the situation has been *

Almost never 1 2 3 4 5 Almost always

I think that I have to accept the situation *

Almost never 1 2 3 4 5 Almost always

I feel that I am the one who is responsible for what has happened *

Almost never

1

2

3

4

5

Almost always

Complete

About your emotions

This questionnaire asks different questions about how you experience emotions **on a regular basis (for example, each day)**. When you are asked about being 'emotional,' this may refer to being angry, sad, excited, or some other emotion. Please rate the following statements.

Even the littlest things make me emotional *

Not like me at all 0 1 2 3 4 Extremely like me

I often get so upset it's hard for me to think straight *

Not like me at all 0 1 2 3 4 Extremely like me

When I am angry/upset, it takes me much longer than most people to calm down *

Not like me at all 0 1 2 3 4 Extremely like me

When I feel emotional, it's hard for me to imagine feeling any other way *

Not like me at all 0 1 2 3 4 Extremely like me

I tend to get very emotional very easily *

Not like me at all 0 1 2 3 4 Extremely like me

My moods are very strong and powerful *

Not like me at all 0 1 2 3 4 Extremely like me

Complete

Bodily sensations

Please rate on the scale how accurately you believe you can perceive each specific signals without using external cues, e.g. measuring your pulse.

I can always accurately perceive when something is going to be ticklish *

Disagree Strongly

1 2 3 4 5

Strongly Agree

I can always accurately perceive when I am going to burp *

Disagree Strongly

1 2 3 4 5

Strongly Agree

I can always accurately perceive when someone is touching me affectionately rather than non-affectionately *

Disagree Strongly

1 2 3 4 5

Strongly Agree

I can always accurately perceive when my heart is beating fast *

Disagree Strongly

1 2 3 4 5

Strongly Agree

I can always accurately perceive when I am going to cough *

Disagree Strongly

1 2 3 4 5

Strongly Agree

I can always accurately perceive when I am thirsty *

Disagree Strongly

1 2 3 4 5

Strongly Agree

I can always accurately perceive when my muscles are tired/sore *

Disagree Strongly

1 2 3 4 5

Strongly Agree

I can always accurately perceive when I am going to sneeze *

Disagree Strongly

1 2 3 4 5

Strongly Agree

I can always accurately perceive when something is going to be itchy *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately perceive when I am in pain *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately perceive when I am hungry *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately perceive when I need to urinate *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately perceive when I am breathing fast *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately perceive when I need to defecate *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately perceive when my blood sugar is low *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately perceive when I am going to vomit *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately perceive when I encounter different tastes *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately perceive when I am hot/cold *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately perceive when I am sexually aroused *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately perceive when I am going to get a bruise *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately choose the lowest option *

Disagree Strongly 1 2 3 4 5 Strongly Agree

I can always accurately perceive when I am going to pass wind *

Disagree Strongly 1 2 3 4 5 Strongly Agree

Complete

About you and your body

Please indicate how often each statement applies to you generally in daily life.

When I bring awareness to my body I feel a sense of calm *

Never 0 1 2 3 4 5 6 Always

I notice that my breathing becomes free and easy when I feel comfortable *

Never 0 1 2 3 4 5 6 Always

When I feel physical pain, I become upset *

Never 0 1 2 3 4 5 6 Always

I notice that my body feels different after a peaceful experience *

Never 0 1 2 3 4 5 6 Always

When I am in discomfort or pain I cannot get it out of my mind *

Never 0 1 2 3 4 5 6 Always

When I am upset, I take time to explore how my body feels *

Never 0 1 2 3 4 5 6 Always

When I am tense I notice where the tension is located in my body *

Never 0 1 2 3 4 5 6 Always

I listen for information from my body about my emotional state *

Never 0 1 2 3 4 5 6 Always

I start to worry that something is wrong if I feel any discomfort *

Never 0 1 2 3 4 5 6 Always

I can maintain awareness of my inner bodily sensations even when there is a lot going on around me *

Never 0 1 2 3 4 5 6 Always

When something is wrong in my life I can feel it in my body *

Never 0 1 2 3 4 5 6 Always

I notice changes in my breathing, such as whether it slows down or speeds up *

Never 0 1 2 3 4 5 6 Always

I distract myself from sensations of discomfort *

Never 0 1 2 3 4 5 6 Always

When I feel pain or discomfort, I try to power through it *

Never 0 1 2 3 4 5 6 Always

I push feelings of discomfort away by focusing on something *

Never 0 1 2 3 4 5 6 Always

When I feel overwhelmed I can find a calm place inside *

Never 0 1 2 3 4 5 6 Always

When I am in conversation with someone, I can pay attention to my posture *

Never 0 1 2 3 4 5 6 Always

I listen to my body to inform me about what to do *



I can maintain awareness of my whole body even when a part of me is in pain or discomfort *



I can refocus my attention from thinking to sensing my body *



I can use my breath to reduce tension *



I can return awareness to my body if I am distracted *



I try to ignore pain *



When I feel unpleasant body sensations, I occupy myself with something else so I do not have to feel them *



I notice when I am uncomfortable in my body *



I can stay calm and not worry when I have feelings of discomfort or pain *



I am able to consciously focus on my body as a whole *

Never 0 1 2 3 4 5 6 Always

I am at home in my body *

Never 0 1 2 3 4 5 6 Always

I notice how my body changes when I am angry *

Never 0 1 2 3 4 5 6 Always

I ignore physical tension or discomfort until they become more severe *

Never 0 1 2 3 4 5 6 Always

When I am caught up in thoughts, I can calm my mind by focusing on my body/breathing *

Never 0 1 2 3 4 5 6 Always

I notice how my body changes when I feel happy / joyful *

Never 0 1 2 3 4 5 6 Always

I notice where in my body I am comfortable *

Never 0 1 2 3 4 5 6 Always

I can pay attention to my breath without being distracted by things happening around me *

Never 0 1 2 3 4 5 6 Always

I notice that I am being asked to respond all the way to the right *

Never 0 1 2 3 4 5 6 Always

I can notice an unpleasant body sensation without worrying about it *

Never 0 1 2 3 4 5 6 Always

I trust my body sensations *

Never 0 1 2 3 4 5 6 Always

I feel my body is a safe place *

Never 0 1 2 3 4 5 6 Always

Complete

Mental health

Are you currently living with one of the following medically diagnosed difficulty? *

- Addiction (e.g., Alcohol, Drugs, Gambling, ...)
- Attention Deficit Hyperactivity Disorder (ADHD)
- Autism
- Bipolar Disorder
- Borderline Personality Disorder (BPD)
- Generalized Anxiety Disorder (GAD)
- Major Depressive Disorder (MDD)
- Obsessive-Compulsive Disorder (OCD)
- Panic Disorder
- Post-Traumatic Stress Disorder (PTSD)
- Schizophrenia
- Social Anxiety Disorder (Social Phobia)
- Specific Phobias
- Eating Disorders (e.g., Anorexia, Bulimia, ...)
- None
- Other

[Continue](#)

About you and your body

Please answer the following questions based on how accurately each statement describes you in general.

I don't always feel the need to drink until I am really thirsty*

Disagree



Agree

When I am sexually aroused, I often feel changes in my temperature (e.g., feeling warm or cold)*

Disagree



Agree

I don't always feel the need to eat until I am really hungry*

Disagree



Agree

Being sexually aroused is a very different bodily feeling compared to other states (e.g., feeling anxious, relaxed, or after physical exercise)*

Disagree



Agree

In general, I am very sensitive to changes in my breathing*

Disagree



Agree

My genital organs are very sensitive to pleasant stimulations*

Disagree



Agree

During sex or masturbation, I often feel very strong sensations coming from my genital areas*

Disagree 0 1 2 3 4 5 6 Agree

I often only notice how I am breathing when my breathing becomes shallow or irregular*

Disagree 0 1 2 3 4 5 6 Agree

I often check the smell of my armpits *

Disagree 0 1 2 3 4 5 6 Agree

Being relaxed is a very different bodily feeling compared to other states (e.g., feeling anxious, sexually aroused or after exercise)*

Disagree 0 1 2 3 4 5 6 Agree

I can notice even very subtle changes in the way my heart beats*

Disagree 0 1 2 3 4 5 6 Agree

I can always accurately feel when I am about to sneeze*

Disagree 0 1 2 3 4 5 6 Agree

I am always very aware of how I am breathing, even when I am calm*

Disagree 0 1 2 3 4 5 6 Agree

I always know when I am sexually aroused*

Disagree 0 1 2 3 4 5 6 Agree

I can always accurately feel if my heart rate is slow or fast*

Disagree 0 1 2 3 4 5 6 Agree

My skin is susceptible to itchy fabrics and materials*

Disagree 0 1 2 3 4 5 6 Agree

Sometimes I am not sure whether I need to go to the toilet or not (to urinate or defecate)*

Disagree 0 1 2 3 4 5 6 Agree

I can always accurately feel when I am about to vomit*

Disagree 0 1 2 3 4 5 6 Agree

I can notice even very subtle changes in my breathing*

Disagree 0 1 2 3 4 5 6 Agree

I always feel it in my body if I am sexually aroused*

Disagree 0 1 2 3 4 5 6 Agree

I often check the smell of my farts*

Disagree 0 1 2 3 4 5 6 Agree

I sometimes feel like I need to urinate or defecate but when I go to the bathroom I produce less than I expected*

Disagree 0 1 2 3 4 5 6 Agree

I often notice changes in my heart rate *

Disagree 0 1 2 3 4 5 6 Agree

Sometimes my heart starts racing and I often don't know why *

Disagree 0 1 2 3 4 5 6 Agree

I can always tell that I am sexually aroused from the way I feel inside *

Disagree 0 1 2 3 4 5 6 Agree

When I am sexually aroused, I often notice specific sensations in my genital area (e.g., tingling, warmth, wetness, stiffness, pulsations) *

Disagree 0 1 2 3 4 5 6 Agree

I often only notice how I am breathing when it becomes loud *

Disagree 0 1 2 3 4 5 6 Agree

I can always accurately answer to the extreme left on this question to show that I am reading it *

Disagree 0 1 2 3 4 5 6 Agree

Sometimes my breathing becomes erratic or shallow and I often don't know why *

Disagree 0 1 2 3 4 5 6 Agree

When I am sexually aroused, I often feel like some areas of my skin become sweaty (e.g., palms, back, forehead) *

Disagree 0 1 2 3 4 5 6 Agree

I don't always feel the need to urinate until my bladder is very full *

Disagree 0 1 2 3 4 5 6 Agree

I often check the smell of my own breath *

Disagree 0 1 2 3 4 5 6 Agree

My skin is very sensitive to painful stimulations (e.g., pinching) *

Disagree 0 1 2 3 4 5 6 Agree

I can notice even very subtle stimulations to my skin (e.g., very light touches) *

Disagree 0 1 2 3 4 5 6 Agree

When I am sexually aroused, I often feel changes in the way my heart beats (e.g., faster or stronger) *

Disagree 0 1 2 3 4 5 6 Agree

I only notice my heart when it is thumping in my chest *

Disagree 0 1 2 3 4 5 6 Agree

I can always accurately feel when I am about to burp *

Disagree 0 1 2 3 4 5 6 Agree

I often feel the need to urinate even when my bladder is not full *

Disagree 0 1 2 3 4 5 6 Agree

Being anxious is a very different bodily feeling compared to other states (e.g., feeling sexually aroused, relaxed or after exercise) *

Disagree 0 1 2 3 4 5 6 Agree

I often feel like I can't get enough oxygen by breathing normally *

Disagree 0 1 2 3 4 5 6 Agree

Complete

About the world we live in

Below are very general statements about the world, not the world we wish we lived in, but the **actual world as it is now**.

Please share your sense of agreement or disagreement. When in doubt, go with what initially feels true of the real world.

There are no wrong answers. There is no need to overthink.

No matter where we are, incredible beauty is always around us *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

Instead of being cooperative, the world is a cut-throat and competitive place *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

The world is an abundant place with tons and tons to offer *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

The universe needs me for something important *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

While some things are worth checking out or exploring further, most things probably aren't worth the effort *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

It often feels like events are happening in order to help me in some way *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

I tend to see the world as pretty safe *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

On the whole, I know I must press the highest option *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

Events seem to lack any cosmic or bigger purpose *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

Most things in the world are good *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

Most things and situations are harmless and totally safe *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

What happens in the world is meant to happen *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

No matter where we are or what the topic might be, the world is fascinating *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

Most things in life are kind of boring *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

Everything happens for a reason and on purpose *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

Most things have a habit of getting worse *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

On the whole, the world is a dangerous place *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

The world is a somewhat dull place where plenty of things are not that interesting *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

In life, there's way more beauty than ugliness *

Strongly Disagree 0 1 2 3 4 5 Strongly Agree

Complete

About your mood

All things considered, how satisfied are you with your life as a whole?

No satisfaction at all



Completely satisfied

Next

About your mood

Over the **last 2 weeks**, how often have you been bothered by the following problems?

Not being able to stop or control worrying *

Not at all

Once or twice

Several days

More than half the days

Nearly every day

Little interest or pleasure in doing things *

Not at all

Once or twice

Several days

More than half the days

Nearly every day

Feeling nervous, anxious or on edge *

Not at all

Once or twice

Several days

More than half the days

Nearly every day

Feeling down, depressed, or hopeless *

Not at all

Once or twice

Several days

More than half the days

Nearly every day

Previous

Complete

Medical and somatic difficulties

Are you currently living with one of the following medically diagnosed condition?

Musculoskeletal and pain *

- Hypermobility Syndrome (e.g., Ehlers-Danlos Syndrome)
- Fibromyalgia
- Chronic Fatigue Syndrome
- Chronic Pain Syndrome
- Back Pain
- Muscle Tension
- None
- Other

Dermatological and skin *

- Skin Rashes
- Eczema
- Psoriasis
- Sjogren's Syndrome
- None
- Other

Cardiovascular *

- Chest Pain
- Cardiac Arrhythmia (palpitations)
- Hypertension (High Blood Pressure)
- Hypotension (Low Blood Pressure)
- None
- Other

Gastrointestinal *

- Irritable Bowel Syndrome (IBS)
- Gastroesophageal Reflux Disease (GERD)
- Crohn's Disease
- Ulcerative Colitis
- Celiac Disease
- Gluten Intolerance
- Lactose Intolerance
- None
- Other

Respiratory *

- Shortness of Breath
- Asthma
- Chronic Obstructive Pulmonary Disease (COPD)
- Sleep Apnea
- Chronic Bronchitis
- None
- Other

Neurological *

- Nausea/Vomiting
- Dizziness/Lightheadedness
- Migraine
- Neuropathy
- Epilepsy
- Multiple Sclerosis (MS)
- None
- Other

Genitourinary *

- Frequent Urination
- Endometriosis
- Interstitial Cystitis
- Chronic Pelvic Pain Syndrome
- None
- Other

Continue

About your emotions

Please answer the following questions based on how accurately each statement describes you in general.

I am able to describe my feelings easily *

Strongly Disagree

1 2 3 4 5

Strongly Agree

I find examination of my feelings useful in solving personal problems *

Strongly Disagree

1 2 3 4 5

Strongly Agree

I am often confused about what emotion I am feeling *

Strongly Disagree

1 2 3 4 5

Strongly Agree

I often don't know why I am angry *

Strongly Disagree

1 2 3 4 5

Strongly Agree

I prefer to just let things happen rather than to understand why they turned out that way *

Strongly Disagree

1 2 3 4 5

Strongly Agree

I am often puzzled by sensations in my body *

Strongly Disagree

1 2 3 4 5

Strongly Agree

I have physical sensations that even doctors don't understand *

Strongly Disagree

1 2 3 4 5

Strongly Agree

I don't know what's going on inside me *

Strongly Disagree

1 2 3 4 5

Strongly Agree

It is difficult for me to reveal my innermost feelings, even to close friends *

Strongly Disagree 1 2 3 4 5 Strongly Agree

It is difficult for me to find the right words for my feelings *

Strongly Disagree 1 2 3 4 5 Strongly Agree

Being in touch with emotions is essential *

Strongly Disagree 1 2 3 4 5 Strongly Agree

People tell me to describe my feelings more *

Strongly Disagree 1 2 3 4 5 Strongly Agree

I have feelings that I can't quite identify *

Strongly Disagree 1 2 3 4 5 Strongly Agree

Looking for hidden meanings in movies or plays distracts from their enjoyment *

Strongly Disagree 1 2 3 4 5 Strongly Agree

I prefer talking to people about their daily activities rather than their feelings *

Strongly Disagree 1 2 3 4 5 Strongly Agree

I prefer to analyze problems rather than just describe them *

Strongly Disagree 1 2 3 4 5 Strongly Agree

I can feel close to someone, even in moments of silence *

Strongly Disagree 1 2 3 4 5 Strongly Agree

I find it hard to describe how I feel about people *

Strongly Disagree 1 2 3 4 5 Strongly Agree

I am able to respond all the way to the left *

Strongly Disagree 1 2 3 4 5 Strongly Agree

When I am upset, I don't know if I am sad, frightened, or angry *

Strongly Disagree 1 2 3 4 5 Strongly Agree

I prefer to watch 'light' entertainment shows rather than psychological dramas *

Strongly Disagree 1 2 3 4 5 Strongly Agree

Complete

Health Monitoring

In general, how physically active are you? *

Not at all

0

1

2

3

4

5

6

7

Very much

How many hours of active workout do you do per week (e.g., gym, running, sports)? *

e.g., 2

Next

Health Monitoring

Do you use a device that can monitor any of the following? *

Many electronic devices, like smart watches, sports sensors (FitBits) or medical devices, can detect bodily signals such as heart rate, sleep quality, etc.

- Heart rate
- Number of steps
- Calories burnt
- Calorie intake
- Sleep quality
- Weight (including with a regular scale)
- None
- Other

[Previous](#)[Continue](#)

Health Monitoring

How often do you check your heart rate? *

Never

Very rarely

A few times per week

Once a day

A few times per day

A few times per hour

How important is this information about your body to you?

Not at all

0

1

2

3

4

5

6

7

Very much

Previous

Next

Health Monitoring

How often do you check your number of steps? *

Never

Very rarely

A few times per week

Once a day

A few times per day

A few times per hour

How important is this information about your body to you?

Not at all

0

1

2

3

4

5

6

7

Very much

Previous

Next

Health Monitoring

How often do you check your number of calories burnt? *

Never

Very rarely

A few times per week

Once a day

A few times per day

A few times per hour

How important is this information about your body to you?

Not at all

0

1

2

3

4

5

6

7

Very much

Previous

Next

Health Monitoring

How often do you check your calorie intake? *

Never

Very rarely

A few times per week

Once a day

A few times per day

A few times per hour

How important is this information about your body to you?

Not at all

0

1

2

3

4

5

6

7

Very much

Previous

Next

Health Monitoring

How often do you check your sleep quality? *

Never

Very rarely

A few times per week

Once a day

A few times per day

A few times per hour

How important is this information about your body to you?

Not at all

0

1

2

3

4

5

6

7

Very much

Previous

Next

Health Monitoring

How often do you check your weight (including with a regular scale)? *

Never

Very rarely

A few times per week

Once a day

A few times per day

A few times per hour

How important is this information about your body to you?

Not at all

0

1

2

3

4

5

6

7

Very much

Previous

Continue



Debriefing

The purpose of this study was to create and validate a new questionnaire measuring interoception. Interoception involves being aware of changes happening inside our bodies, both physiological (e.g., our heart rate) and emotional, and it plays a crucial role in how we perceive and experience the world around us. It has been related to emotion regulation, self-awareness and overall mental well-being.

Thank you again! Your participation in this study will be kept completely confidential. If you have any questions or concerns about the project, please contact D.Makowski@sussex.ac.uk. and/or A.Neves@Sussex.ac.uk

To complete your participation in this study, click on 'Continue' and **wait until your responses have been successfully saved** before closing the tab.

[Continue](#)

Feedback

It is the end of the experiment! Don't hesitate to leave us a feedback.

Answers to these questions will not affect your reward but will help us to contextualize your answers

Did you enjoy doing this experiment?



Anything else you would like to share with us?

Please note that these comments might be shared publicly as part of the results of this study - avoid sharing personal information.

To what extent did you do the experiment carefully and to the best of your abilities?



[Complete the experiment](#)