## Supplementary materials

## Table S1

Instructions and fragments of the BFI versions

## Family

You will be presented with a series of items that may or may not match with you. For instance, "I like to spend time with others". For each item, please indicate your degree of agreement according to this Likert scale:
strongly disagree; disagree; more or less disagree; neither agree nor disagree; more or less agree; agree; strongly agree.

In this questionnaire, you must evaluate yourself in a specific situation: Family.
For each item, please evaluate how you are, in general, with your family. Therefore, please do not refer to a specific event but your overall image in this situation.
Indeed, when you rate an item, please refer to several events associated with this item.
It is important to note that there are no wrong or right answers.

## Family situation:

When I am with my family, I see myself as someone who... 1. ...is talkative.

When I am with my family, I see myself as someone who... 2. ...tends to find fault with others.

## Work

You will be presented with a series of items that may or may not match with you. For instance, "I like to spend time with others". For each item, please indicate your degree of agreement according to this Likert scale:
strongly disagree; disagree; more or less disagree; neither agree nor disagree; more or less agree; agree; strongly agree.

In this questionnaire, please evaluate yourself in a specific situation: Work.
For each item, please evaluate how you are, in general, at work. Therefore, please do not refer to a specific event but your overall image in this situation.
Indeed, when you rate an item, please refer to several events associated with this item.
It is important to note that there are no wrong or right answers.

## Work situation:

When I am at work, I see myself as someone who...

1. ...is talkative.

When I am at work, I see myself as someone who...
2. ...tends to find fault with others.

## Table S1

Table S1 continued


## Significant other situation:

When I am with my romantic partner, I see myself as someone who... 1. ... is talkative.

When I am with my romantic partner, I see myself as someone who...
2. ...tends to find fault with others.
[...]
Friends
You will be presented with a series of items that may or may not match with you. For instance, "I like to spend time with others". For each item, please indicate your degree of agreement according to this Likert scale:
strongly disagree; disagree; more or less disagree; neither agree nor disagree; more or less agree; agree; strongly agree.

In this questionnaire, you must evaluate yourself in a specific situation: Friends.
For each item, you have to evaluate how you are, in general, with your friends. Therefore, please do not refer to a specific event but your overall image in this situation.
Indeed, when you rate an item, please refer to several events associated with this item.
It is important to note that there are no wrong or right answers.

## Friends situation:

When I am with my friends, I see myself as someone who...

1. ...is talkative.

When I am with my friends, I see myself as someone who...
2. ...tends to find fault with others.
[...]
(Table S1 continues)

Table S1

Table S1 continued

## Hobbies/Leisure

You will be presented with a series of items that may or may not match with you. For instance, "I like to spend time with others". For each item, please indicate your degree of agreement according to this Likert scale:
strongly disagree; disagree; more or less disagree; neither agree nor disagree; more or less agree; agree; strongly agree.

In this questionnaire, you must evaluate yourself in a specific situation: Hobbies (the passionate tasks you perform or your favorite pastime, e.g. a sportive activity, playing an instrument, painting).

For each item, you have to evaluate how you are, in general, in this Hobbies situation. Therefore, please do not refer to a specific event but your overall image in this situation.
Indeed, when you rate an item, please refer to several events associated with this item.
It is important to note that there are no wrong or right answers.

## Hobbies situation:

When I am doing my hobbies, I see myself as someone who...

1. ...is talkative.

When I am doing my hobbies, I see myself as someone who...
2. ...tends to find fault with others.
[...]

## Table S2

Cronbach's alphas of all domains of personality across the five situations

| Situations | $\alpha_{\text {all }}$ | Domains of personality |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Extraversion | Agreeableness | Conscientiousness | Neuroticism | Openness |
| Family | .83 | .89 | .79 | .87 | .85 | .82 |
| Work | .75 | .90 | .79 | .84 | .85 | .80 |
| Romantic | .79 | .87 | .74 | .84 | .83 | .73 |
| partner |  |  |  |  |  |  |
| Friends | .76 | .89 | .77 | .84 | .80 | .74 |
| Hobbies | .76 | .86 | .77 | .81 | .84 | .72 |

## Table S3

MANOVA with repeated measures

| Overall model | Sum <br> of squares | $d f$ | Mean <br> square | $F_{G-G}$ | $p$ | $\eta^{2}{ }_{p}$ |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: |
| Gender | 23.40 | 1 | 23.50 | 7.72 | .007 | 0.09 |
| Situation | 5.63 | 3.05 | 1.84 | 5.05 | .002 | 0.06 |
| Dimension | 1542.80 | 3.03 | 508.80 | 132.30 | $<.001$ | 0.63 |
| Situation * Gender | 3.75 | 3.05 | 1.23 | 3.37 | .019 | 0.04 |
| Dimension * Gender | 13.22 | 3.03 | 4.36 | 1.13 | .336 | - |
| Situation * Dimension | 66.10 | 10.35 | 6.38 | 14.63 | $<.001$ | 0.16 |
| Situation * Dimension * Gender | 5.97 | 10.35 | 0.58 | 1.32 | .211 | - |
| Note. The MANOVA analysis was run using the Greenhouse-Geisser correction $\left(F_{G C}\right)$. |  |  |  |  |  |  |

Note. The MANOVA analysis was run using the Greenhouse-Geisser correction $\left(F_{G-G}\right)$.
Table S4

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | - | . 01 | . 00 | . 00 | . 00 | . 24 | . 00 | . 00 | . 00 | . 00 | . 27 | . 00 | . 00 | . 00 | . 00 | . 09 | . 00 | . 00 | . 00 | . 00 | . 19 | . 00 | . 00 | -. 05 | . 00 |
| 2 | . 25 * | - | . 00 | -. 11 | . 00 | . 02 | . 23 | . 13 | . 00 | . 00 | . 01 | . 23 | . 00 | . 00 | . 00 | . 03 | . 00 | . 00 | . 00 | . 00 | . 00 | . 21 | . 00 | -. 04 | . 00 |
| 3 | . 06 | .26* | - | . 00 | . 03 | . 00 | . 00 | . 18 | -. 01 | . 00 | . 00 | . 00 | . 24 | . 00 | . 00 | . 00 | . 00 | . 23 | -. 05 | . 00 | . 00 | . 00 | . 31 | . 00 | . 00 |
| 4 | -.30** | $-.41^{* * *}$ | -. 28 * | - | . 00 | . 00 | . 00 | . 00 | . 23 | . 00 | . 00 | . 00 | . 00 | . 09 | . 00 | -. 10 | . 00 | . 00 | . 22 | . 00 | . 00 | . 00 | . 00 | . 21 | . 00 |
| 5 | . 10 | . 31 ** | .35** | -. 08 | - | . 00 | . 04 | . 02 | . 00 | 27 | . 00 | . 00 | . 00 | . 00 | . 26 | . 00 | . 00 | . 00 | . 00 | . 05 | . 00 | . 00 | . 00 | . 00 | . 20 |
| 6 | . $66^{* * *}$ | .35** | -. 01 | -.23* | 16 | - | . 05 | . 00 | -. 05 | . 00 | . 06 | . 06 | . 00 | . 00 | . 00 | . 20 | . 00 | . 00 | . 00 | . 00 | . 17 | . 00 | . 00 | . 00 | . 00 |
| 7 | . $33^{* *}$ | . 68 *** | . $28^{*}$ | -.26* | .36** | . $42^{* * *}$ | - | . 00 | . 00 | . 01 | . 00 | . 11 | . 00 | . 00 | . 00 | . 00 | . 38 | . 00 | . 00 | . 01 | . 10 | . 04 | . 00 | . 00 | . 00 |
| 8 | . 11 | .49*** | . $65^{* * *}$ | -.23* | . 40 *** | . 17 | . 40 *** | - | . 00 | . 06 | . 00 | . 08 | . 09 | . 00 | . 00 | . 00 | . 00 | . 18 | . 00 | . 00 | . 00 | . 00 | . 05 | . 00 | . 00 |
| 9 | -.24* | -.38*** | -. $27^{*}$ | . $64^{* * *}$ | . 12 | -.32** | $-.30^{* *}$ | -.29* | - | . 00 | . 00 | . 00 | . 00 | . 24 | . 00 | . 00 | . 00 | . 00 | . 30 | . 00 | . 00 | -. 12 | -. 03 | . 06 | . 00 |
| 10 | . 12 | .33** | 16 | -. 06 | .74*** | . 19 | . 31 ** | . $39^{* * *}$ | -. 13 | - | . 00 | . 01 | . 00 | . 00 | . 19 | . 00 | . 00 | . 00 | . 00 | . 23 | . 00 | . 00 | . 00 | -. 02 | . 15 |
| 11 | . 69 *** | . $33^{* * *}$ | . 02 | -.29** | 21 | . 61 *** | .33** | . 04 | -.23* | . 15 | - | . 07 | . 00 | -. 02 | . 00 | . 24 | . 00 | -. 02 | . 00 | . 00 | . 34 | . 00 | . 00 | . 00 | . 00 |
| 12 | .33** | . 68 *** | . 28 * | -. $27^{*}$ | . 29 ** | . 40 *** | .70*** | . $37^{* * *}$ | -.29** | .29** | . 41 *** | - | . 00 | . 00 | . 00 | . 02 | . 36 | . 00 | . 00 | . 00 | . 00 | . 19 | . 00 | . 00 | . 00 |
| 13 | . 00 | . 15 | .73*** | -. 17 | .23* | . 02 | . 05 | .56*** | -.25* | . 12 | -. 06 | . 19 | - | -. 02 | . 00 | . 00 | . 00 | . 31 | . 00 | . 00 | . 00 | . 00 | . 25 | . 00 | . 00 |
| 14 | -. 22 | -.25* | -.23* | . 61 *** | - .19 | -. 14 | -. 06 | -. 17 | . 68 *** | *-. 11 | -. 33 | -. 19 | $-.33^{* *}$ | - | . 00 | . 00 | . 00 | . 00 | . 21 | . 00 | . 00 | . 00 | -. 06 | . 26 | . 00 |
| 15 | . 04 | . 18 | . 21 | . 05 | .77*** | . 17 | . 19 | . 22 | -. 05 | . $78^{* * *}$ | . 15 | .23* | . $24 *$ | -. 09 | - | . 00 | . 00 | . 00 | . 00 | . 38 | . 00 | . 00 | . 00 | . 00 | . 18 |
| 16 | .59*** | . $32^{* *}$ | . 11 | -.40*** | . 05 | . $55^{* * *}$ | . $36 * *$ | . 09 | -.29** | -. 04 | . 64 *** | . $37^{* * *}$ | . 06 | -. 21 | . 05 | - | . 00 | . 00 | -. 05 | . 00 | . 10 | . 00 | . 00 | . 00 | . 00 |
| 17 | . 30 ** | . $55^{* * *}$ | .25* | -. 15 | . 17 | . $35^{* * *}$ | .72*** | .33** | -. 19 | . 20 | . 26 * | . $81{ }^{* * *}$ | . 13 | . 00 | . 12 | .32** | - | . 00 | . 00 | . 00 | . 00 | . 09 | . 00 | . 00 | . 00 |
| 18 | . 07 | . 21 | .69*** | -. 05 | . 28 * | . 01 | . 21 | . 62 *** | -. 10 | . 24 * | -. 08 | . 20 | .75*** | -. 10 | . $28^{*}$ | . 10 | . 30 ** | - | . 00 | . 01 | . 00 | . 00 | . 06 | . 00 | . 00 |
| 19 | -. 19 | -.23* | -. 26 * | . 68 *** | . 01 | -. 13 | -. 05 | -. 14 | .70*** | * . 07 | -. $24^{*}$ | -. 13 | -. $25^{*}$ | . $67^{* * *}$ | . 06 | $-.33^{* *}$ | -. 04 | -. 16 | - | . 00 | . 00 | . 00 | . 00 | . 00 | . 00 |
| 20 | . 09 | . 20 | 14 | -. 03 | . 70 *** | . 19 | .29** | .23* | -. 05 | . 80 *** | 14 | .27* | 13 | . 01 | . 85 *** | . 09 | . 20 | . $28^{*}$ | . 05 | - | . 04 | . 00 | . 00 | . 00 | . 19 |
| 21 | . $67^{* * *}$ | . 38 *** | . 21 | -.29* | . 33 ** | . $67^{* * *}$ | .51*** | . 17 | -. $24^{*}$ | . 30 ** | .71*** | . $42^{* * *}$ | . 08 | -.25* | . 31 | . 56 *** | .35** | . 16 | -. 22 | .35** | - | . 00 | . 00 | -. 03 | . 00 |
| 22 | . $27 *$ | .69*** | . $24 *$ | -.33** | .29* | . 32 ** | .61*** | . 30 ** | -.42*** | * .30** | .36** | . $68^{* * *}$ | . 16 | -.24* | . 22 | . 32 ** | . $62^{* * *}$ | . 18 | -.23* | . 26 * | . $35^{* * *}$ | - | . 00 | . 00 | . 09 |
| 23 | . 07 | . 09 | . $65^{* * *}$ | -. 17 | . 22 | -. 05 | . 05 | . 50 *** | -. $28^{*}$ | . 16 | -. 04 | .25* | . 68 *** | - 2.28 * | . 21 | . 01 | 18 | .58**** | *-.25* | . 12 | . 11 | . $24 *$ | - | . 00 | . 02 |
| 24 | -.28* | $-.44^{* * *}$ | -. 23 * | . $55^{* * *}$ | - -20 | -. 21 | -.28* | -.28 * | .53*** | * -25 | -. 18 | $-.33^{* *}$ | -. 30 | .59*** | -. 14 | $-.33^{* *}$ | -. 21 | -.24* | .49*** | -. 11 | $-.39^{* * *}$ | -.37*** | -.29* | - | . 00 |
| 25 | . 11 | . 23 * | . 14 | . 00 | .72*** | . 15 | . 20 | . 15 | -. 07 | .73*** | . 18 | . 25 * | . 14 | -. 15 | .75*** | . 00 | . 13 | . 16 | . 06 | . 76 *** | . 29 * | . $34 * *$ | .26* | $-.23^{*}$ | - |
| 26 | -. 10 | -. 18 | $-.33^{* *}$ | . $35^{* *}$ | -. 15 | -. 14 | $-.35^{* *}$ | -. $28^{*}$ | . 19 | -. 11 | -. 02 | $-.30^{* * *}$ | -. 04 | . 04 | -. 02 | -. 14 | $-.42^{* * *}$ | -. 12 | . 22 | -. 13 | -. 07 | -. 17 | -. 07 | -. 05 | . 08 |
| $\begin{aligned} & M \\ & (S D) \end{aligned}$ | $\begin{gathered} 5.70 \\ (0.74) \end{gathered}$ | $\begin{gathered} 5.30 \\ (0.86) \end{gathered}$ | $\begin{gathered} 4.80 \\ (1.13) \end{gathered}$ | $\begin{gathered} 3.30 \\ (1.11) \end{gathered}$ | $\begin{gathered} 5.00 \\ (0.83) \end{gathered}$ | $\begin{gathered} 5.40 \\ (0.86) \end{gathered}$ | $\begin{aligned} & 4.70 \\ & (1.10) \end{aligned}$ | $\begin{gathered} 5.30 \\ (1.10) \end{gathered}$ | $\begin{gathered} 3.10 \\ (1.09) \end{gathered}$ | $\begin{gathered} 5.00 \\ (0.90) \end{gathered}$ | $\begin{gathered} 5.60 \\ (0.72) \end{gathered}$ | $\begin{gathered} 5.00 \\ (0.89) \end{gathered}$ | $\begin{gathered} 5.40 \\ (1.03) \end{gathered}$ | $\begin{gathered} 2.90 \\ (0.94) \end{gathered}$ | $\begin{gathered} 5.10 \\ (0.74) \end{gathered}$ | $\begin{gathered} 5.40 \\ (0.74) \end{gathered}$ | $\begin{gathered} 4.80 \\ (0.96) \end{gathered}$ | $\begin{gathered} 5.50 \\ (0.96) \end{gathered}$ | $\begin{gathered} 3.30 \\ (1.01) \end{gathered}$ | $\begin{gathered} 5.10 \\ (0.75) \end{gathered}$ | $\begin{gathered} 5.70 \\ (0.69) \end{gathered}$ | $\begin{gathered} 5.20 \\ (0.78) \end{gathered}$ | $\begin{gathered} 5.30 \\ (0.91) \end{gathered}$ | $\begin{gathered} 2.80 \\ (0.94) \end{gathered}$ | $\begin{gathered} 5.00 \\ (0.72) \end{gathered}$ |

 Conscientiousness; 3 - Work, Extraversion; 4 - Work, Neuroticism, 5 - Work, Openness; 6 - Family, Agreeableness, 7 - Family, Conscientiousness, 8 - Family, Lxtraversion, 9 - Fanily, Neuroticism, 10 - Fandic partner, Conscientiousness; 18 - Romantic partner, Extraversion; 19 - Romantic partner, Neuroticism; 20 - Romantic partner, Openness; 21 - Hobbies, Agreeableness; 22 - Hobbies, Conscientiousness; 23 - Hobbies, Extraversion; 24 - Hobbies, Neuroticism; 25 - Hobbies, Openness; 26 - Across-situation variability. ${ }^{*} p<.05 ;{ }^{* *} p<.01 ;{ }^{* * *} p<.001$.

Figure S1

## Experimental design



Note. BFI - Big Five Inventory; *situations were randomly distributed.

## Figure S2

Network analysis - graphical display of centrality measures per variable


Note. 1 - Work, Agreeableness; 2 - Work, Conscientiousness; 3 - Work, Extraversion; 4 - Work, Neuroticism; 5 - Work, Openness; 6 - Family, Agreeableness; 7 - Family, Conscientiousness; 8 - Family, Extraversion; 9 - Family, Neuroticism; 10 - Family, Openness; 11 - Friends, Agreeableness; 12 - Friends, Conscientiousness; 13 - Friends, Extraversion; 14 - Friends, Neuroticism; 15 - Friends, Openness; 16 - Romantic partner, Agreeableness; 17 - Romantic partner, Conscientiousness; 18 - Romantic partner, Extraversion; 19 - Romantic partner, Neuroticism; 20 - Romantic partner, Openness; 21 - Hobbies, Agreeableness; 22 - Hobbies, Conscientiousness; 23 - Hobbies, Extraversion; 24 - Hobbies, Neuroticism; 25 - Hobbies, Openness; 26 - Across-situation variability.

Figure S3

Network analysis - graphical display of the edge stability

- Bootstrap mean •Sample


Note. Bootstrapped $95 \%$ confidence intervals of edge weights, based on 1,000 nonparametric bootstrap samples: a nonparametric bootstrap method and construction of $95 \%$ bootstrapped confidence interval around the regularized edge weight were used to investigate the stability of edge weight parameters. The red dots represent the original sample values. The black dots represent the bootstrap means, and the gray areas represent the $95 \%$ bootstrapped confidence interval. The bootstrapped confidence interval is very narrow, suggesting highly stable and interpretable findings.

