

Caring is costly: People avoid the cognitive work of compassion (#36251)

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1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

Do people choose to disengage from compassion more so than from objective detachment?

H1 (Main effect of listening instruction on choice): There will be a main effect such that participants will be less likely to choose to listen to the second part of a radio broadcast program under compassion instructions than when under objective detachment instructions.

H2 (Main effect of listening instruction on effort): There will be a main effect such that participants will report more cognitive effort and difficulty while listening to radio broadcast programs under compassion listening instructions than when under objective detachment instructions.

H3 (Correlation of disengagement and effort): There will be a correlation such that when participants report listening instructions to be cognitively effortful and difficult, that they will be less likely to choose to listen to the second part of the broadcast programs under either listening instruction condition (i.e., compassion, objective detachment).

H4 (Main effect of listening instruction on state concern ratings): There will be a main effect such that participants will show stronger state concern ratings under compassion instructions than when under objective detachment instructions.

3) Describe the key dependent variable(s) specifying how they will be measured.

Dependent Variable 1: Choice to continue listening to broadcast program

"Thank you for listening to this radio broadcast program. Please indicate below whether you would like to continue listening to more of the radio broadcast program, or if you feel you have enough experience with the broadcast program to provide further evaluations."

Binary choice (option 1-continue listening, option 2-do not continue listening).

This binary choice is provided for both listening instruction conditions (compassion, objective detachment) after participants listen to the first half of the broadcast program.

Dependent Variable 2: Effort, aversion, and efficacy (NASA Task Load Index; Hart & Staveland, 1988)

1. How mentally demanding was it to engage with the listening instructions for this program?
2. How hard did you have to work to engage with the listening instructions for this program?
3. How insecure, discouraged, irritated, stressed, and annoyed were you by engaging with the listening instructions for this program?
4. How successful were you in engaging with the listening instructions for this program?

5-point Likert scale (1-Very low; 5-Very high)

Items 1 and 2 are averaged to create "effort", Item 3 is "aversion", and Item 4 is "efficacy".

The NASA Task Load Index is assessed after the first half of the broadcast program plays, just before the binary choice to continue.

Dependent Variable 3: State Affect Ratings (Dziobek et al., 2008)

1. How calm/aroused were you when listening to this program?
(9-point Likert scale: 1-calm; 9-aroused)
2. How negative/positive did you feel when listening to this program?
(9-point Likert scale: 1-negative; 9-positive)
3. How concerned were you for Carol Marcy/Harold Mitchell?
(9-point Likert scale: 1-not at all; 9-extremely)

Carol Marcy (Toi & Batson, 1982) and Harold Mitchell (Shaw, Batson, & Todd, 1994) represent the two targets presented in the radio broadcast programs which are counterbalanced and randomized for pairing with the compassion and objective listening instructions. Additionally, Self-Assessment Manikins (Bradley & Lang, 1994) are paired with each item such that the calm/aroused item has its associated 9-image manikin, the negative/positive item has its associated 9-image manikin, and the concern item has the dominance 9-image manikin given its progression from very small at "1" to very large at "9" to reflect the range of concern for this scale item. The State Affect ratings are assessed after participants finish listening to each radio broadcast program.

4) How many and which conditions will participants be assigned to?

One within-subjects independent variable (IV) with two levels.

IV: Listening instructions (compassion, objective detachment).

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

First, we will examine descriptive statistics of the proportion of choice frequency of continuing on within each of the compassion and objective detachment listening instruction conditions.

Second, we will conduct a generalized linear mixed model to compare choices to continue across the compassion and objective detachment listening instruction conditions.

Third, we will conduct a repeated measures ANOVA to examine whether participants rate the compassion listening instructions to be more effortful, aversive, and less efficacious than the objective detachment listening instructions using the NASA Task Load Index (Hart & Staveland, 1988).

Fourth, we will run bivariate correlations to examine if when participants perceive either listening instruction (i.e., compassion, objective detachment) to be effortful, aversive, or inefficacious to engage in, whether they would then be less likely to choose to continue with the paired radio broadcast program further.

Fifth, we will conduct a generalized linear mixed model to compare state concern ratings after compassion and objective detachment listening instruction conditions.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

First, we are applying MTurk filters, such as 1000 HITs or greater completed, US only, 95% or greater approval rate, excluding repeat participants and also suspicious geolocations through TurkPrime features.

Second, we plan to exclude participants who exit the study early (i.e., those that exit before completing the critical DVs: the choice measures, the effort and difficulty ratings on the NASA Task Load Index, and the state affect and concern ratings).

Third, we plan to exclude participants that indicate not attempting to follow listening instructions:

"To what extent did you attempt to follow the instructions about the listening perspective you were instructed to take on?"

7-point Likert scale (1-Not at all; 7-Extremely); participants with scores of "1" (i.e., Not at all) will be excluded from analyses.

Fourth, we plan to exclude participants who provide nonsense responses (i.e., random letters and numbers, as well as responses that reflect absolute gibberish with nonsensical words) on our open-ended responses in the survey:

"For our records, what was the name of the person in the last clip." "What was the listening perspective that you were asked to take?" "In the space below, please let us know if you have any thoughts about this radio broadcast program."

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

We are aiming to collect 200 participants in this study. Based on a prior power analysis in G*Power 3.1 for our repeated measures within subject design, in order to adequately achieve 80% power to obtain a small-to-moderate effect size (e.g., $d = 0.2$), we would need to obtain 52 participants. However, we are also aiming to recruit enough participants to test whether there is a correlation between reported cognitive effort on the compassion and objective detachment listening instructions, as well as with individual difference measures. We are also accounting for participants who may opt to leave the study early and who fall under exclusion criteria, therefore we are aiming to recruit 200 participants.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

For exploratory purposes, we will examine listening instruction main effects on state valence and arousal ratings. We are also collecting data from the Interpersonal Reactivity Index (Davis, 1983), Empathy Index (Jordan, Amir, & Bloom, 2016), and the Apathy-Motivation Index (Ang et al., 2017). We also have exploratory items for reward ("How emotionally rewarding was it engaging with the listening instructions of this program" "How socially rewarding was it engaging with the listening instructions of this program?") and value ("How valuable did you find engaging with the listening instructions of this program") responded to on 5-point Likert scales (1-Very low; 5-Very high). We will examine correlations of these measures with choices to continue listening on to the radio broadcast programs across the two listening instruction conditions, compassion and objective detachment, and also whether they moderate any differences in choice preferences across these two listening instruction conditions. Lastly we are including measures to assess lay theories of compassion and empathy. The first measure asks participants "Which picture best describes your representation of the uniqueness or similarity of empathy and compassion?" using a 7-point scale with corresponding images adapted from the Inclusion of Other in the Self Scale with the word "Empathy" in the left circles and the word "Compassion" in the right circles (Aron, Aron, & Smollan, 1992). We also have two open-ended questions asking participants, "How would you define the word compassion? Please write your response below.", and "How would you define the word empathy? Please write your response below.".