

Supplementary Files for the Study

‘The Pleasure Principle: Why (Some) People Develop a Taste for Politics’

Data and Code: <https://dx.doi.org/10.17605/OSF.IO/7M4GD>

Pre-Registration <https://osf.io/24xyq>

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S1: Questionnaires

This supplement contains the questionnaires. See Supplementary Material for further material, including an Unipark project file that allows re-running the survey using the Questback Survey Software.

German Questionnaire

Themenk: Willkommen und Datenschutz	Intro
Vermutete Dauer:	20 Sekunden [Konservativ, da es meist überlesen wird]

Frage

Wissenschaftliche Studie

Die folgende Befragung ist Teil einer **wissenschaftlichen Studie** der **Universität Mannheim** zu Medien und politischem Verhalten in modernen Demokratien. **Ihre Antworten sind Grundlage für unsere Forschung.** Je sorgfältiger und aufmerksamer Sie teilnehmen, desto zuverlässiger werden die gewonnenen Forschungsergebnisse sein.

Ton einschalten

Im Zuge der Befragung haben Sie die Gelegenheit, ein **Video** zu sehen. Bitte seien Sie sich aufmerksam an. Schalten Sie daher jetzt bereits den **Ton Ihres Computers** an. **Es ist wichtig, dass Sie das Video sehen und hören können.**

Datenschutz

Im Zuge der technischen Abwicklung der Befragung (z.B. während des Beantwortens der Umfrage) aus technischen Gründen auch personenbezogene Daten (z.B. IP-Adresse) erhoben werden. Zudem wird im Zuge dieser Befragung ein YouTube Video eingeblendet. Sollten Sie dieses Video abspielen und den entsprechenden Datenschutzbestimmungen zustimmen, können auch hier personenbezogene Daten technischer Art (z.B. IP-Adresse) gespeichert werden. Die wissenschaftliche Auswertung Ihrer Antworten in dieser Befragung erfolgt ausschließlich **anonym**.

Weitere Informationen zum Studienzweck erhalten Sie nach Beendigung des Fragebogens.

Themenk: Soziodemographie	Item: Geschlecht
Vermutete Dauer:	10
Filter:	
Varnames:	Sex

Darstellung:

must answer; Einfachauswahl untereinander; Plausitext, wenn keine Angabe: Bitte beachten Sie, dass eine Antwort für die Fortsetzung der Umfrage notwendig ist. Sollten Sie ihren Schulabschluss im Ausland erworben haben, geben Sie bitte einen entsprechenden deutschen Abschluss an.

Ursprung:

GLES

Textintro:

Geben Sie bitte Ihr Geschlecht an.

- männlich
- weiblich

Themenk: Soziodemographie	Item: Alter
----------------------------------	--------------------

Vermutete Dauer: 10

Filter:**Varnames:**

Age

Darstellung:

must answer; Einfachauswahl untereinander; Plausitext, wenn keine Angabe: Bitte beachten Sie, dass eine Antwort für die Fortsetzung der Umfrage notwendig ist. Sollten Sie ihren Schulabschluss im Ausland erworben haben, geben Sie bitte einen entsprechenden deutschen Abschluss an.

Ursprung:

GLES

Textintro:

Bitte geben Sie Ihr Alter in Jahren an.

- 18-29
- 30-39
- 40-49
- 50-59
- 60 und älter

Themenk: Soziodemographie	Item: Schulabschluss
----------------------------------	-----------------------------

Filter:**Darstellung:**

must answer; Einfachauswahl untereinander; Plausitext, wenn keine Angabe: Bitte beachten Sie, dass eine Antwort für die Fortsetzung der Umfrage notwendig ist. Sollten Sie ihren Schulabschluss im Ausland erworben haben, geben Sie bitte einen entsprechenden deutschen Abschluss an.

Ursprung:

GLES

Varnames:

edu

FrageText:

Welchen höchsten allgemeinbildenden Schulabschluss haben Sie?

- Schule beendet ohne Abschluss
- Hauptschulabschluss, Volksschulabschluss, Abschluss der polytechnischen Oberschule 8. oder 9. Klasse
- Realschulabschluss, Mittlere Reife, Fachschulreife oder Abschluss der polytechnischen Oberschule 10. Klasse
- Fachhochschulreife (Abschluss einer Fachoberschule etc.)
- Abitur bzw. erweiterte Oberschule mit Abschluss 12. Klasse (Hochschulreife)
- bin noch Schüler

Codierung:

(1) Schule beendet ohne Abschluss

(2) Hauptschulabschluss

(3) Realschulabschluss

(4) Fachhochschulreife

(5) Abitur

(9) bin noch Schüler

→ **Check for Quota and Filtering**

Themenk: Erklärende Variable	Item: Politische Motivation 1
-------------------------------------	--------------------------------------

Vermutete Dauer: 30 Sekunden

Filter:

Varnames:

pre_mot_*

Darstellung:

Standard-Matrix

Textintro:

Menschen können sich auf unterschiedliche Weise politisch beteiligen oder sich mit Politik auseinandersetzen. Sie können zum Beispiel über Politik diskutieren, in einer Bürgerinitiative mitarbeiten, politische Nachrichten hören, sehen oder lesen, an Demonstrationen teilnehmen.

Bitte geben Sie an, inwieweit die folgenden Aussagen auf Sie persönlich zutreffen oder nicht zutreffen.

FrageText:

Wenn ich mich politisch beteilige oder mit Politik auseinandersetze, tue ich das, weil...

- ich es interessant finde zu verfolgen, was in der Politik passiert
[intrinsisch, pre_mot_intrinsic1]

- ich mir selbst Druck mache, politisch auf dem Laufenden zu sein.
[introjeziert, pre_mot_introjected1]
- andere Menschen mir sagen, dass ich es tun sollte.
[external, pre_mot_external1]
- ich mich selbst als politischen Menschen begreife.
[identifiziert, pre_mot_identified1]
- ich stolz bin, wenn ich etwas über Politik verstehe.
[introjeziert, pre_mot_introjected2]
- Politik für mich ein Herzensanliegen ist
[identifiziert, pre_mot_identified2]
- Um sicherzugehen, dass diese Befragung von einem Menschen ausgefüllt wird, klicken Sie hier bitte auf 'teils/teils'.
[attentioncheck]

Codierung:

- (1) trifft überhaupt nicht auf mich zu
- (2) trifft eher nicht auf mich zu
- (3) teils/teils
- (4) trifft eher auf mich zu
- (5) trifft voll und ganz auf mich zu

→ **Screenout if attention check was failed**

Themenk: Einstellungen zu Politik allgemein **Item:** Politisches Interesse, allgemein

Ursprung:

GLES

Darstellung:

Einfachauswahl untereinander

Varnames:

polint

Frage text:

Wie stark interessieren Sie sich im Allgemeinen für Politik?

- sehr stark
- stark
- mittelmäßig
- weniger stark

- überhaupt nicht

Codierung:

- (1) sehr stark
- (2) stark
- (3) mittelmäßig
- (4) weniger stark
- (5) überhaupt nicht

Themenk: Erklärende Variable	Item: Politische Motivation 2
-------------------------------------	--------------------------------------

Vermutete Dauer: 30 Sekunden

Filter:

Varnames:

pre_mot_intrinsic

Darstellung:

Standard-Matrix

Textintro:

Hier sehen sie noch einmal einige Gründe deretwegen sich Menschen politisch beteiligen oder mit Politik auseinander-setzen.

Bitte geben Sie an, inwieweit die folgenden Aussagen auf Sie persönlich zutreffen oder nicht zutreffen.

Frage text:

Wenn ich mich politisch beteilige oder mit Politik auseinandersetze, tue ich das, weil...

- es meinen Prinzipien entspricht, mich mit Politik auseinanderzusetzen.
[identifiziert, pre_mot_identified3]
- Menschen respektiert werden, wenn sie viel über Politik wissen.
[external, pre_mot_external2]
- ich Politik spannend finde.
[intrinsisch, pre_mot_intrinsic2]
- ich so Kritik von Freunden und Verwandten vermeiden kann.
[external, pre_mot_external3]
- man Politik verfolgen sollte, selbst wenn man gerade keine Lust darauf hat.
[introjeziert, pre_mot_introjected3]
- es mir Freude bereitet, mich mit Politik auseinanderzusetzen.
[intrinsisch, pre_mot_intrinsic3]

Codierung:

- (1) trifft überhaupt nicht auf mich zu
- (2) trifft eher nicht auf mich zu
- (3) teils/teils
- (4) trifft eher auf mich zu
- (5) trifft voll und ganz auf mich zu

Themenk: Einstellungen zu Politik allgemein **Item:** Bürgerschaftsnormen**Ursprung:** ISSP 2016**Darstellung:**

Einfachauswahl untereinander

Frage text:

Es gibt verschiedene Ansichten darüber, was einen guten Bürger ausmacht. Was meinen Sie: Inwieweit sind folgende Dinge wichtig, um ein guter Bürger zu sein?

Dass jemand...

- immer wählen geht.
- niemals versucht, Steuern zu hinterziehen.
- Gesetze und Bestimmungen immer befolgt.
- sehr aufmerksam verfolgt, was die Regierung macht.
- in sozialen oder politischen Vereinigungen aktiv ist.
- versucht, den Standpunkt Andersdenkender zu verstehen.
- sich aus politischen, ethischen oder Umweltgründen für Produkte entscheidet, selbst wenn sie etwas mehr kosten.

Skala

1 Überhaupt nicht wichtig

2

3

4

5

6

7 Sehr wichtig

Themenk: Erklärende Variable**Item:** Politische Motivation 3**Vermutete Dauer:** 30 Sekunden**Filter:****Varnames:**

pre_mot_intrinsic

Darstellung:

Standard-Matrix

Textintro:

Ein letztes Mal sehen sie hier Gründe deretwegen sich Menschen politisch beteiligen oder mit Politik auseinandersetzen.

Bitte geben Sie an, inwieweit die folgenden Aussagen auf Sie persönlich zutreffen oder nicht zutreffen.

FrageText:

Wenn ich mich politisch beteilige oder mit Politik auseinandersetze, tue ich das, weil...

- ich Politik oft aufregend finde.
[intrinsisch, pre_mot_intrinsic4]
- ich mich schämen würde, wenn ich über Politik nicht informiert bin.
[introjeziert, pre_mot_introjected4]
- Politik zu meiner Persönlichkeit gehört.
[identifiziert, pre_mot_identified4]
- Andere sonst auf mich herabblicken würden.
[external, pre_mot_external4]
- ich mir selbst beweisen will, dass ich mich auch mit Dingen wie Politik auseinandersetze.
[introjeziert, pre_mot_introjected5]
- mir Politik einfach wichtig ist.
[identifiziert, pre_mot_identified5]
- ich den Eindruck habe, dass es von mir erwartet wird.
[external, pre_mot_external5]

Codierung:

- (1) trifft überhaupt nicht auf mich zu
- (2) trifft eher nicht auf mich zu
- (3) teils/teils
- (4) trifft eher auf mich zu
- (5) trifft voll und ganz auf mich zu

Themenk: Experiment	Item: Political knowledge quiz 1 [need-supportive, Comp+]
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Vermutete Dauer: 30 Sekunden

Filter:

Respondents need-for-competence-supportive condition

Varnames:

comp_sup_quiz_politician

Darstellung:**Textintro:****FrageText:**

Wir möchten gerne wissen, ob Sie mehr oder weniger als andere Menschen über Politik wissen. Ein kurzes Quiz.
Bitte markieren Sie alle Politikerinnen und Politiker, die Mitglied der SPD sind.

Bilder in need-for-competence-supportive condition:

[Bekannte PolitikerInnen der SPD]

Themenk: Experiment**Item:** Political knowledge quiz 1 [need-supportive, Comp-]**Vermutete Dauer:** 30 Sekunden**Filter:**

Respondents need-for-competence-thwarting condition

Varnames:

comp_thwart_quiz_politician

Darstellung:**Textintro:****Frage text:**

Wir möchten gerne wissen, ob Sie mehr oder weniger als andere Menschen über Politik wissen. Ein kurzes Quiz.
Bitte markieren Sie alle Politikerinnen und Politiker, die Mitglied der SPD sind.

Bilder in need-for-competence-thwarting condition:

[Weniger bekannte PolitikerInnen der SPD]

Themenk: Experiment**Item:** Political knowledge quiz 2 [need-supportive, Comp+]**Vermutete Dauer:** 10 Sekunden**Filter:**

Respondents need-for-competence-supportive condition

Varnames:

comp_sup_quiz_estimate

Darstellung:

Schieberegler

Textintro:**Ursprung:**

GLES

Ausfüllhinweis:

Wenn Sie es nicht wissen, geben Sie Ihre beste Schätzung ab.

Frage text:

Bei Wahlen zum Deutschen Bundestag gilt eine Prozenthürde, die Parteien überschreiten müssen um im Bundestag vertreten zu sein. Ab wie viel Prozent der Zweitstimmen kann eine Partei auf jeden Fall Abgeordnete in den Bundestag entsenden?

Themenk: Experiment	Item: Political knowledge quiz 2 [need-thwarting, Comp-]
----------------------------	---

Vermutete Dauer: 10 Sekunden

Filter:

Respondents need-for-competence-thwarting condition

Varnames:

comp_thwart_quiz_estimate

Darstellung:

Schieberegler

0 bis 1000

Textintro:

Ausfüllhinweis:

Beziehen Sie sich auf die Anzahl der Mitglieder im gegenwärtigen 19. Deutschen Bundestag.

Frage text:

Der Deutsche Bundestag ist ein wichtiges gesetzgebendes Gremium.

Wie viele Abgeordnete entscheiden im gegenwärtigen Bundestag über unsere Gesetze? Wenn Sie die Anzahl der Bundestagsmitglieder nicht kennen, geben Sie Ihre beste Schätzung ab.

Themenk: Experiment	Item: Feedback Stimuli + Efficacy [need-supportive, Comp+]
----------------------------	---

Vermutete Dauer: 20 Sekunden

Filter:

Respondents need-for-competence-supportive condition

Varnames:

comp_sup_quiz_efficacy

Ursprung:

GLES / Gesis-Kurzskalen / Eigen

Darstellung:

Matrix

Textintro:

Frage text:

Ihr persönliches Quizresultat: Überdurchschnittliches Wissen über Politik.

Unser Algorithmus hat Ihre Antworten mit den bisherigen Antworten anderer Teilnehmer verglichen. *Herzlichen Glückwunsch!* Offenbar kennen Sie sich mit Politik besser aus als andere Befragte. Toll.

In den bisher gesammelten Wissensquiz-Daten schneiden Sie besser ab als 72% der bisherigen Befragten. Politik gehört offenbar zu Ihren Stärken.

Soweit die Daten. Wir wollen aber wissen, was Sie selbst über sich denken!

Bitte geben Sie an, inwieweit folgende Aussagen auf Sie zutreffen.

- Wichtige politische Fragen kann ich gut verstehen und einschätzen.
[reverse, comp_sup_quiz_efficacy1]
- Über politische Angelegenheiten bin ich in der Regel umfassend informiert.
[comp_sup_quiz_efficacy2]

Codierung:

- (1) trifft überhaupt nicht auf mich zu
- (2) trifft eher nicht auf mich zu
- (3) teils/teils
- (4) trifft eher auf mich zu
- (5) trifft voll und ganz auf mich zu

Themenk: Experiment

Item: Feedback Stimuli + Efficacy [need-thwarting, Comp-]

Vermutete Dauer: 20 Sekunden

Varnames:

comp_thwart_quiz_efficacy

Filter:

Respondents need-for-competence-thwarting condition

Darstellung:

Matrix

Textintro:

Ursprung:

GLES / Gesis-Kurzskalen / Eigen

Frage text:

Ihr persönliches Quizresultat: Unterdurchschnittliches Wissen über Politik.

Unser Algorithmus hat ihre Antworten mit den bisherigen Antworten anderer Teilnehmer verglichen. Leider hat sich dabei ergeben, *dass Sie deutlich weniger über Politik wissen als andere Befragungsteilnehmer.*

Mit Blick auf die bisher gesammelten Daten schneiden Sie im politischen Wissensquiz schlechter ab als 72% der bisherigen Befragten. Politik gehört offenbar nicht zu Ihren Stärken.

Soweit die Daten. Wir wollen aber wissen, was Sie selbst über sich denken!

Bitte geben Sie an, inwieweit folgende Aussagen auf Sie zutreffen.

- Wichtige politische Fragen kann ich gut verstehen und einschätzen.
[comp_thwart_quiz_efficacy1]

- Über politische Angelegenheiten bin ich in der Regel umfassend informiert .
[comp_thwart_quiz_efficacy2]

Codierung:

- (1) trifft überhaupt nicht auf mich zu
 (2) trifft eher nicht auf mich zu
 (3) teils/teils
 (4) trifft eher auf mich zu
 (5) trifft voll und ganz auf mich zu

Themenk: Experiment**Item:** IntrMot Stimulus [need-supportive, Aut+]**Vermutete Dauer:** 30 Sekunden**Filter:****Varnames:****Darstellung:**

Multiple Choice

Textintro:

Viele Menschen berichten, dass die Auseinandersetzung mit Politik mitunter Freude und Befriedigung bereitet. Hier sehen Sie einige Gründe, aus denen Menschen sich gerne mit Politik befassen.

Bitte überlegen Sie, ob auch Sie schon einmal Spaß oder Interesse an der Auseinandersetzung mit Politik hatten.

Markieren Sie alle Aussagen, denen Sie zustimmen können.

- Es bereitet Freude, über Politik zu lernen und zu verstehen, wie die Dinge zusammenhängen.
[aut_sup_agree1]
- Das Spektakel in der Politik zu verfolgen ist oft unterhaltsam, denn letztlich ist Politik wie ein großer Zirkus.
[aut_sup_agree2]
- Politik ist interessant, weil von politischen Entscheidungen so viel abhängt.
[aut_sup_agree3]

Themenk: Experiment**Item:** Stimulus + DV: Neigung zu politischem Medienkonsum**Vermutete Dauer:** 20 Sekunden**Filter:****Varnames:**

exp_aut_cont_sup_choice_video, exp_aut_thwart_choice_video

Darstellung:

Einfachauswahl untereinander

Textintro:**Frage text:**

Zufallsauwahl eines Frames: [Kontrollgruppe / Treatmentgruppe 1 / Treatmentgruppe 2 / Treatmentgruppe 3]

Antwortoptionen:

- (A) YouTube-Video: Lustiger alter Mann
- (B) WDR-Mitschnitt: Populäre Abendsendung
- (C) Politisches Video: Sozialgesetzgebung
- (D) Politisches Video: Appell für mehr Gerechtigkeit

Kontrollgruppe + Wir möchten verstehen, wie Menschen im Internet Videos konsumieren. Daher werden wir Ihnen

Need-supportive: auf der nächsten Fragebogenseite ein Video zeigen. Es ist wichtig, dass Sie dafür bitte **jetzt** den Ton ihres Computers anschalten.

Wir haben mehrere Videos vorbereitet, aus denen die Teilnehmer dieser Befragung auswählen können. **Entscheiden Sie sich, welchen Film Sie sehen möchten.** Dieses Video wird dann auf der nächsten Seite des Fragebogens abgespielt.

Need-thwarting: **No Choice**

Wir möchten verstehen, wie Menschen im Internet Videos konsumieren. Daher werden wir Ihnen auf der nächsten Fragebogenseite ein Video zeigen. Es ist wichtig, dass Sie dafür bitte *jetzt den Ton ihres Computers anschalten.*

Für diese Studie haben wir vier Videos vorbereitet, aus denen Studienteilnehmer auswählen dürfen.

Einige Teilnehmern dürfen aus allen Videos wählen, andere Teilnehmer müssen eines der politischen Videos sehen.

Ein Zufallsgenerator hat bestimmt, dass Sie zur Gruppe gehören, die ein politischen Video wählen muss.

Auch wenn alle Auswahloptionen eingeblendet sind, müssen sie aus Studienzwecken ein "Politisches Video" auswählen und ansehen. Unsere Software erfasst, ob Sie einen Film aus der Gruppe „Politische Videos“ wählen.

Entscheiden Sie sich, welches Video sie sehen möchten. Dieses Video wird dann auf der nächsten Seite des Fragebogens abgespielt.

Topic: meta data, dependent variable **Item:** Experimental stimulus

Vermutete Dauer: 60 Sekunden

Filter:

Darstellung:

Einfachauswahl untereinander

Textintro:

Frage text:

Bitte schalten Sie den Ton an. Starten Sie dann das Video und schauen Sie es, so lange Sie wollen.

Einbetten: <https://www.youtube.com/watch?v=mQHHb0l105Y>

Zu speichernde Variable: Dauer des Verbleibs auf dieser Seite

Topic: meta data, dependent variable, behavioral measure **Item:** intrinsic motivation, free choice activity

Vermutete Dauer: 10 Sekunden

Filter:

Varnames:

exp_intr_behavioral

Comment:

Presentation: Radio-Button

FrageText:

Haben Sie Lust, am Ende dieser Befragung noch ein weiteres Video dieser Art zu sehen, oder wollen Sie lieber die Befragung schnell beenden? Sie erhalten keine zusätzlichen Vergütung, können aber ein weiteres Video dieser Art anschauen, falls Sie Lust dazu haben.

- Ja, ich möchte später freiwillig noch ein ähnliches Video sehen.
- Nein, ich möchte kein solches Video mehr sehen.

Topic: cognitive processing, dependent variable **Item:** Depth of processing

Vermutete Dauer: 60 Sekunden

Varnames:

exp_quality_obj_pos, exp_quality_obj_con

Kommentar:

Darstellung: three small text boxes

FrageText:

Wir möchten erfahren, wie Sie die Ausführungen des Herrn im Video zu Lohnnebenkosten einschätzen.

Erklären Sie kurz in einem oder in wenigen Stichworten.

- Laut Video, wie wirkt eine Senkung der Lohnnebenkosten aus Sicht des Arbeitnehmers?
[exp_quality_obj1]
- Laut Video, was sind Lohnnebenkosten aus Sicht des Arbeitgebers?
[exp_quality_obj2]
- Laut Video, wer muss die Deckungslücke in den Sozialausgaben nach einer Lohnnebenkostensenkung bezahlen?
[exp_quality_obj3]

Topic: dependent variable, self-report **Item:** task-related intrinsic motivation & manipul. check (perception of choice)

Vermutete Dauer: 60 Sekunden

Filter:

Varnames:

Comment: adopted from [\(Deci et al., 1994\)](#)

Presentation: Matrix

FrageText:

Wir haben noch einige Frage zu dem Video, das sie gesehen haben. Bitte geben Sie an, inwieweit folgende Aussagen auf Sie zutreffen.

- (A) Ich hatte wirklich Lust, das Video anzusehen.
[Intrinsic Motivation; exp_intr_subj1]
- (B) Ich habe das Video aufmerksam angeschaut.
[DV: Quality of Engagement exp_qual_subj1]
- (C) Mir fallen viele gute Gründe ein, warum man sich mit Politik Freude interessant kann. [sic]
[Manipulation Check: autonomy-supportive group; exp_aut_manip_utsup]
- (D) Ich würde das Video als sehr interessant beschreiben.
[Intrinsic Motivation; exp_intr_subj1]
- (E) Ich habe mich unter Druck gesetzt gefühlt, das Video anzuschauen.
[Manipulation Check: no choice group; exp_aut_manip_nochoice]
- (F) Ich war froh, als das Video zu Ende war.
[Reverse Coded, Intrinsic Motivation; exp_intr_subj3]
- (G) Durch das Video konnte ich etwas Interessantes lernen.
[Intrinsic Motivation; exp_intr_subj4]
- (H) Den Inhalt des Videos habe ich nur oberflächlich wahrgenommen.
[Reverse Coded, DV: Quality of Engagement; exp_qual_subj2]

Coding:

- (1) trifft überhaupt nicht auf mich zu
- (2) trifft eher nicht auf mich zu
- (3) teils/teils
- (4) trifft eher auf mich zu
- (5) trifft voll und ganz auf mich zu

Topic: Debriefing **Item:****Vermutete Dauer:** 30 Sekunden**Filter:****Kommentar:****Darstellung:** Text**FrageText:****Wichtige Information: Aufklärung über Experiment in der Befragung**

Danke für Ihre Teilnahme! Sie haben soeben an einer sozialwissenschaftlichen Befragung teilgenommen. Teil dieser Befragung waren zwei Experimente:

Erstens wurde zufällig ausgelost, welche Begleitinformationen Sie zum Video angezeigt bekamen, das Sie während der Befragung gesehen haben. Mit diesem Experiment möchten wir untersuchen, wie diese situativen Unterschiede die Neigung beeinflussen, sich mit Politik auseinanderzusetzen.

Zweitens wurden der Inhalt des Wissensquiz und das folgende Feedback zufällig gestaltet **Das Feedback zum Quiz war unabhängig von Ihren tatsächlichen Antworten und reflektiert nicht zwangsläufig das tatsächliche Niveau Ihres Wissens über Politik!** Mit diesem Experiment möchten wir untersuchen, wie persönliche Selbstwahrnehmung politisches Verhalten beeinflusst.

Bitte haben Sie Verständnis, dass wir aus praktischen Gründen unabhängig von Ihren Angaben kein zweites Video zeigen können. Diese Frage diente lediglich zur Messung ihrer Bereitschaft, ähnliche Medieninhalte zu konsumieren.

Bei Fragen können Sie sich gerne an den Studienverantwortlichen wenden: [email adress]

English Questionnaire (Translation)

Themenk: welcome and data privacy**Intro**

Duration: 20 seconds[conservative, because mostly skipped]

Scientific Study

The following survey is part of a **scientific study** at the **University of Mannheim** on media and political behavior in modern democracies. **Your answers are the basis for our research.** The more careful and attentive you participate, the more reliable will the won research results be.

Unmute

In the course of the survey, you will have the opportunity to watch a video. Please watch it carefully. Therefore, turn on the **volume of your computer** now. **It is important that you are able to watch and listen to the video.**

Protection of Data Privacy

In the course of technical processing of the survey (e.g. while answering the survey) on technical reasons also personal data (e.g. IP-address) will be compiled. In the course of this survey, additionally, a YouTube video will be showed. When you play the video and agree with the corresponding data privacy terms, also personal data of technical character (e.g. IP-address) could be saved. The scientific evaluation of your answers on this survey will be carried out exclusively **anonymous**.

You will receive more information on the study at the end of the questionnaire.

Themenk: Sozio-demographics

Item: Sex

Duration: 10 seconds

Filter:

Varnames:

Sex

Presentation:

Source:

GLES

Text introduction:

Please specify your sex.

- male
- female

Themenk: Sozio-demographics

Item: Age

Duration: 10 seconds

Filter:

Varnames:

Age

Presentation:

must answer; single response list (vertical); plausibility check: Please note that an answer to this question is mandatory for continuing the survey. If you have acquired your school leaving certificate outside of Germany, please state the respective German certificate.

source:

GLES

Text introduction:

Please indicate your age.

- 18-29
- 30-39
- 40-49
- 50-59
- 60 and older

Themenk: Sozio-demographics

Item: Graduation

Filter:

Presentation

must answer; single response list (vertical); plausibility check: Please note that an answer to this question is mandatory for continuing the survey. If you have acquired your school leaving certificate outside of Germany, please state the respective German certificate.

Source:

GLES

Varnames:

edu

Question text:

What's your highest level of general education?

- Finished school without school leaving certificate
- Lowest formal qualification of Germany's tripartite secondary school system, after 8 or 9 years of schooling ("Hauptschulabschluss, Volksschulabschluss")
- Intermediary secondary qualification, after 10 years of schooling ("Mittlere Reife, Realschulabschluss, or Polytechnische Oberschule mit Abschluss 10. Klasse")
- Certificate fulfilling entrance requirements to study at a polytechnical college ("Fachhochschulreife (Abschluss einer Fachoberschule etc.)")
- Higher qualification, entitling holders to study at a university ("Abitur or Erweiterte Oberschule mit Abschluss 12. Klasse (Hochschulreife)")
- still at school

Code:

- (1) Finished school without school leaving certificate
 - (2) Lowest formal qualification of Germany's tripartite secondary school system, after 8 or 9 years of schooling ("Hauptschulabschluss, Volksschulabschluss")
 - (3) Intermediary secondary qualification, after 10 years of schooling ("Mittlere Reife, Realschulabschluss or Polytechnische Oberschule mit Abschluss 10. Klasse")
 - (4) Certificate fulfilling entrance requirements to study at a polytechnical college/university of applied sciences ("Fachhochschulreife (Abschluss einer Fachoberschule etc.)")
 - (5) Higher qualification, entitling holders to study at a university ("Abitur or Erweiterte Oberschule mit Abschluss 12. Klasse (Hochschulreife)")
- (9) Still at school

→ Check for Quota and Filtering

Themenk: explaining variable	Item: political motivation 1
Duration:	30 seconds
Filter:	

Varnames:

pre_mot_*

Presentation:

Standard-Matrix

Text introduction:

People could participate differently politically or deal with politics. They could, for example, argue about politics, work in a citizens' initiative, listen to, watch or read political news, or participate in a demonstration.

Please report in how far the following statements apply, or not apply to you personally.

When I engage in politics, I do that, because...

- I find it interesting to follow what happens in the politics
[intrinsisch, pre_mot_intrinsic1]
- I put myself under pressure to be politically up to date
[introjeziert, pre_mot_introjected1]
- other people tell me to do that
[external, pre_mot_external1]
- I identify myself as a political person
[identifiziert, pre_mot_identified1]
- I am proud, when I understand something in politics
[introjeziert, pre_mot_introjected2]
- Politics is a for me
[identifiziert, pre_mot_identified2]
- To make sure, this survey is filled out be a human, please klick here on 'neither apply nor does not apply'
[attentioncheck]

Code:

- (1) does not apply at all to me
- (2) does not apply to me
- (3) neither applies nor does not apply
- (4) applies to me
- (5) strongly applies to me

→ **Screenout if attention check was failed**

Themenk: attitudes towards democracy in general	Item: political interest in general
--	--

Source:

GLES

Presentation:

Radio box

Varnames:

polint

Question text:

How strongly are you interested in politics in general?

- Very strongly
- Strongly
- Moderately
- Less strongly
- Not at all

Code:

- (1) very strongly
- (2) strongly
- (3) moderately
- (4) less strongly
- (5) not at all

Themenk: explaining variable	Item: political motivation 2
-------------------------------------	-------------------------------------

Duration: 30 seconds

Filter:

Varnames:

pre_mot_intrinsic

Presentation:

Standard-Matrix

Text introduction:

Here you again see various reasons people engage in politics.

Please report in how far the following statements apply, or not apply to you personally.

Question text:

When I engage in politics, I do that, because...

- it fits my principals, to engage in politics.
[identifiziert, pre_mot_identified3]
- people are respected when they know lots about politics.
[external, pre_mot_external2]
- I find politics interesting.
[intrinsisch, pre_mot_intrinsic2]
- I can avoid criticism by friends and family this way.
[external, pre_mot_external3]
- One should stay informed about politics, even if one is not interested in it at the moment.
[introjeziert, pre_mot_introjected3]
- I feel joy, engaging in politics.
[intrinsisch, pre_mot_intrinsic3]

Code:

- (1) does not apply at all to me
- (2) does not apply to me
- (3) neither applies nor does not apply
- (4) applies to me
- (5) strongly applies to me

Themenk: attitudes towards democracy in general	Item: Norms of citizenship
--	-----------------------------------

Presentation:

Radio box

Question text:

There are different views on what makes a good citizen. What do you think: In how far are the following things important to be a good citizen?

That someone...

- always votes.

- never tries, to make fiscal fraud.
- Always obeys laws and regulations.
- Pays attention to what the government does.
- Participates actively in social or political associations.
- Tries to understand the opinion of people with different opinions.
- Decides for products because of political, ethical or environmental reasons, even if they are a bit more expensive.

Skale

1 not important at all

2

3

4

5

6

7 very important

Themenk: explaining variable

Item: political motivation 3

Duration: 30 seconds

Filter:

Varnames:

pre_mot_intrinsic

Presentation:

Standard-Matrix

Text introduction:

For a last time, you see here reasons why people engage in politics.

Please report in how far following statements apply, or not apply to you personally.

Question text:

When I engage politically, I do it because....

- I find politics thrilling.
[intrinsisch, pre_mot_intrinsic4]
- I would be ashamed if I was not informed about politics.
[introjeziert, pre_mot_introjected4]
- Politics belongs to my personality.
[identifiziert, pre_mot_identified4]
- Otherwise, other people would look down on me.
[external, pre_mot_external4]
- I want to proof to myself, that I engage also in things like politics.

- [introjeziert, pre_mot_introjected5]
- Politics is simply important to me.
[identifiziert, pre_mot_identified5]
 - I got the impression, that people expect that from me.
[external, pre_mot_externals5]

Code:

- (1) does not apply at all to me
- (2) does not apply to me
- (3) neither applies nor does not apply
- (4) applies to me
- (5) strongly applies to me

Themenk: experiment	Item: Political knowledge quiz 1 [need-supportive, Comp+]
----------------------------	--

Duration: 30 seconds

Filter:

Respondents need-for-competence-supportive condition

Varnames:

comp_sup_quiz_politician

Presentation:

Text introduction:

Question text:

We would like to know whether you know more or less about politics than other people. A short quiz. Please mark all politicians who are a member of the SPD.

Pictures in need-for-competence-supportive condition:

[famous SPD politicians]

Themenk: experiment	Item: Political knowledge quiz 1 [need-supportive, Comp-]
----------------------------	--

Duration: 30 seconds

Filter:

Respondents need-for-competence-thwarting condition

Varnames:

comp_thwart_quiz_politician

Presentation:

Text introduction:**Question text:**

We would like to know whether you know more or less about politics than other people. A short quiz. Please mark all politicians that are a member of the SPD.

Pictures in need-for-competence-thwarting condition:

[not very famous SPD politicians]

Themenk: experiment	Item: Political knowledge quiz 2 [need-supportive, Comp+]
----------------------------	--

Duration: 10 seconds

Filter:

Respondents need-for-competence-supportive condition

Varnames:

comp_sup_quiz_estimate

Presentation:

Slider

Text introduction:**Source:**

GLES

Hint:

If you do not know, please give your best estimate.

Question text:

In elections for the Bundestag there is a threshold parties have to pass in order to enter the Bundestag. Do you know what percentage of the second votes a party needs to get in order to enter the Bundestag?

Themenk: experiment	Item: Political knowledge quiz 2 [need-thwarting, Comp-]
----------------------------	---

Duration: 10 seconds

Filter:

Respondents need-for-competence-thwarting condition

Varnames:

comp_thwart_quiz_estimate

Presentation:

Slider

0 through 1000

Text introduction:**Hint:**

Refer to the number of members in the current 19th German Bundestag.

Question text:

The Bundestag is an important legislative committee.

How many deputies in the current Bundestag make laws? If you don't know, please give your best estimate.

Themenk: experiment**Item:** Feedback Stimuli + Efficacy [need-supportive, Comp+]**Duration:** 20 seconds**Filter:**

Respondents need-for-competence-supportive condition

Varnames:

comp_sup_quiz_efficacy

Source:

GLES / Gesis-Kurzskalen / Eigen

Presentation:

Matrix

Text introduction:**Question text:**

Your personal quiz result: knowledge about politics above average.

Our algorithm has compared your responses to the responses of other participants.

Congratulations! Apparently, you know more about politics than other respondents. Great.

Considering all the data we have collected so far, you fare better on the political knowledge quiz than 72% of participants.

Obviously, politics is one of your strengths.

But this is only what our data says. We want to know what you think about yourself!

In your own perception, how well do the following statements apply to you?

- I can understand and evaluate political issues easily.

[reverse, comp_sup_quiz_efficacy1]

- I am usually well informed about political affairs.

[comp_sup_quiz_efficacy2]

Scale:

(1) does not apply at all to me

(2) does not apply to me

(3) neither applies nor does not apply

(4) applies to me

(5) strongly applies to me

Themenk: experiment	Item: Feedback Stimuli + Efficacy [need-thwarting, Comp-]
Duration:	20 seconds
Varnames:	
comp_thwart_quiz_efficacy	
Filter:	Respondents need-for-competence-thwarting condition
Presentation:	Matrix
Text introduction:	
Source:	GLES / Gesis-Short scales
Question text:	Your personal quiz result: <u>knowledge about politics below average.</u>
Our algorithm has compared your responses to the responses of other participants. Unfortunately, it shows that you know <i>far less about politics than other respondents</i> . Considering all data we have collected so far, you fare worse on the political knowledge quiz than 72% of participants. Obviously, politics is not one of your strengths.	
Yet, this is only what our data says. We want to know what you think about yourself! In your own perception, how well do the following statements apply to you?	
- I can understand and evaluate political issues easily. [reverse, comp_sup_quiz_efficacy1]	
- I am usually well informed about political affairs. [comp_sup_quiz_efficacy2]	
Scale:	
(1) does not apply at all to me	
(2) does not apply to me	
(3) neither applies nor does not apply	
(4) applies to me	
(5) strongly applies to me	
Themenk: experiment	Item: IntrMot Stimulus [need-supportive, Aut+]
Duration:	30 seconds
Filter:	
Varnames:	

Presentation:

Multiple Choice

Text introduction:

Many people report that engagement with politics can provide joy and satisfaction. Here you see various reasons why some people like engaging with politics.

Please consider whether you have also found joy in political engagement before. Tick all statements that apply to you.

- It provides pleasure to learn about politics and to understand how things go together.
[aut_sup_agree1]
- Following the spectacle in politics is often entertaining because, in the end, politics is like a grand circus.
[aut_sup_agree2]
- Being informed about politics is satisfying because so much depends on political decisions.
[aut_sup_agree3]

Themenk: experiment**Item:** Stimulus + DV: Neigung zu politischem Medienkonsum**Duration** 20 seconds**Filter:****Varnames:**

exp_aut_cont_sup_choice_video, exp_aut_thwart_choice_video

Presentation:

Radio box

Text introduction:**Question text:***Random selection of a frame: [control group / treatment group 1 / treatment group 2 / treatment group 3]***Question choices:**

- (A) YouTube-video: funny old man
- (B) WDR-recording: popular evening show
- (C) Political video: social legislation
- (D) Political video: call for more social justice

Control group +

Need-supportive:

We would like to understand how people consume video content on the internet. Accordingly, we will present you a video on the next page of this questionnaire. Therefore, it is important that you **now** turn on your volume of your computer.

We have prepared multiple videos from which participants of this survey can choose. **Please decide, which movie you would like to watch.** This video will then be presented on the next page of the questionnaire.

Need-thwarting:

No Choice

We would like to understand how people consume video content on the internet. Accordingly, we will present you with a video on the next page of this questionnaire. Therefore, it is important that *you now turn on the volume of your computer*.

We have prepared four videos from which participants of this survey can choose. Some participants can freely choose, other participants have to watch one of the political videos.

A random generator has determined that you are part of the group of respondents that has to choose a political video.

For research purposes, you have to select a movie with political content and watch it even though there are other options. Our software records, whether you select a movie from the group “political videos”.

Please decide, which video you want to watch. This video will then be presented to you on the next page of this questionnaire.

Topic: meta data, dependent variable **Item:** Experimental stimulus

Duration: 60 seconds

Filter:

Presentation:

Radio box

Text introduction:

Question text:

Please turn on the volume and watch this video as long as you want.

Embedding: <https://www.youtube.com/watch?v=mQHHb0l105Y>

Variable to save: time on this site

Topic: meta data, dependent variable, behavioral measure **Item:** intrinsic motivation, free choice activity

Duration: 10 seconds

Filter:

Varnames:

exp_intr_behavioral

Comment:

Presentation: Radio-Button

Question text:

Would you like to watch another video of this kind at the end of this survey or would you prefer to quickly finish this survey? You will not be granted any extra compensation but you can watch another video of this kind if you want to.

- Yes, voluntarily I would like to watch another video of this kind later.
- No, I do not want to watch more videos of this kind.

Topic: cognitive processing, dependent variable **Item:** Depth of processing

Duration: 60 seconds

Varnames:

exp_quality_obj_pos, exp_quality_obj_con

Comment:

Presentation: three small text boxes

Question text:

We would like to know, how you evaluate the remarks of the man in the video on incidental wage costs.

Explain shortly in one or a few bullet points.

- Concerning to the video, how seems a reduction of the incidental wage costs for employees?
[exp_quality_obj1]
- Concerning to the video, what are incidental wage costs in the view of the employer?
[exp_quality_obj2]
- Concerning to the video, who has to pay for the funding gap in the social spending after a reduction in incidental wage costs?
[exp_quality_obj3]

Topic: dependent variable, self-report **Item:** task-related intrinsic motivation & manipul. check (perception of choice)

Duration: 60 Sekunden

Filter:

Varnames:

Comment: adopted from [\(Deci et al., 1994\)](#)

Presentation: Matrix

Question text:

We have some questions on the video you have watched. Please state how well the following statements apply to you.

- (A) I really wanted to watch this video.
[Intrinsic Motivation; exp_intr_subj1]
- (B) I watched the video attentively.
[DV: Quality of Engagement exp_qual_subj1]
- (C) I can think of many good reasons why one should engage in politics.
[Manipulation Check: autonomy-supportive group; exp_aut_manip_utsup]
- (D) I would describe the video as very interesting
[Intrinsic Motivation; exp_intr_subj1]
- (E) I felt under pressure to watch the video.
[Manipulation Check: no choice group; exp_aut_manip_nochoice]
- (F) I was glad when the video was over.
[Reverse Coded, Intrinsic Motivation; exp_intr_subj3]
- (G) The video helped me to learn interesting things.
[Intrinsic Motivation; exp_intr_subj4]
- (H) I only processed the content of the video superficially.
[Reverse Coded, DV: Quality of Engagement; exp_qual_subj2]

Scale:

- (1) does not apply at all to me
- (2) does not apply to me
- (3) neither applies nor does not apply
- (4) applies to me
- (5) strongly applies to me

Topic: Debriefing	Item:
--------------------------	--------------

Duration: 30 Sekunden

Filter:

Comment:

Presentation: Text

Question text:

Important Information: Declaration about Experiment in Survey

Thank you for your participation. You have participated in a social-scientific survey. Two experiments were part of this survey:

First, it was randomly allocated who received which accompanying information on the video that you have watched during the survey. With this experiment, we want to investigate how situational differences influence the proclivity to engage with politics.

Second, the content and the feedback to the political knowledge quiz was randomly generated. **The feedback to the quiz was independent of your actual responses and does not necessarily reflect your actual level of knowledge about politics.** With this experiment, we investigate how self-image affects political behavior.

Please understand that, independently of your specifications, we cannot show you a second video due to practical reasons. This question was merely employed to measure your willingness to consume similar media content.

If you have any question, please feel free to contact the principal investigator: [email address]

S2: Coding Instructions

The objective measure of behavioral quality relies on an open-ended question gauging whether respondents can accurately respond to the question about the video content. Manual coding was employed to categorize whether a response was accurate or not. Because the survey responses are German, the coding instructions below which were given to the coder are also in German.

Codierungsanweisung: Offene Frage zu Lohnnebenkosten

Originalvideo

<https://www.youtube.com/watch?v=mQHHb0l105Y>

*Frage 1: Laut Video, wie wirkt eine Lohnnebenkostensenkung aus Sicht des Arbeitnehmers?
,Eine Senkung der Lohnnebenkosten ist eine Lohnsenkung. Sonst gar nichts. [...] Freuen Sie sich nie wieder über eine Senkung der Lohnnebenosten. Es ist eine Lohnsenkung. Sie zahlen hinterher drauf.‘ (sek 52)*

Auch zulässige Antworten

kostenerhöhend, nicht sehr positiv, nicht optimal, Höhere Ausgaben, weniger Gehalt, Unfair, Blöd, Schlecht, er muss mehr bezahlen, hat weniger Geld

Nicht zulässig

gut für den Arbeitgeber, Kostensenkend für AG, Minderung der Lohnkosten, Teil des Lohns, Lohn

Frage 2: Laut Video, was sind Lohnnebenkosten aus Sicht des Arbeitgebers?

,Für einen Arbeitgeber sind Lohnnebenkosten einfach ein Teil des Lohns. Welcher Teil des Lohns gesenkt wird ist dem Arbeitgeber ziemlich egal. Hauptsache ist, der muss weniger Geld bezahlen, damit Sie für ihn arbeiten.‘ (sek 12)

Auch zulässige Antworten

Eine Zahlung die weh tut, Betriebskosten, Kosten, Kosten für Sozialversicherungsbeträge, nervig,

Nicht zulässig

Steuern

Frage 3: Laut Video, wer muss die Deckungslücke in den Sozialausgaben nach einer Lohnnebenkostensenkung bezahlen?

,Jetzt raten Sie mal wer das ist [der die Lücke bezahlt]. Kleiner Tipp: Es ist nicht Ihr Arbeitgeber. [...] Sie zahlen hinterher drauf (sek 52).

Auch zulässige Antworten

Ich, nicht der Arbeitgeber, Steuerzahler

Nicht zulässig

der Staat

Notiz

Bis zu Nr. „1703“ (lfdn 13) gab es einen Codierungsfehler in Frage 1. Statt „Laut Video, wie wirkt eine Lohnnebenkostensenkung aus Sicht des Arbeitnehmers?“ hieß es „Laut Video, wie wirkt eine Lohnnebenkostensenkung aus Sicht des Arbeitnehmers?“. Alle diese 13 ersten Personen auf dieser Frage 1 mit Missing Value (.) versehen.

Missing Values

-66 wird als Missing Value (.) codiert.

-99 wird als 0 kodiert (keine richtige Angabe).

S3: Power analysis

This supplement entails multiple steps to describe the strategy for determining the adequate sample size of the proposed study. In the first step, a review of existing studies provides information on the sizes of experimental effects as reported in previous studies whose treatments share certain features with the treatments of the proposed study. In a second step, sample size calculations are conducted at different levels of detectable effect sizes at a pre-specified level of statistical power. The sample size estimates that were derived from the power analysis are then compared with the estimates collected in the review of existing studies to ensure that the intended sample size enables the detection of treatment effects equal to or smaller than the effect sizes reported in previous studies.

When basing sample size calculations on effect sizes in published literature, one needs to take systematic publication biases in the body of scholarly literature into account.(Camerer et al., 2018) In particular, meta-scientific research shows that effect sizes reported in original social science studies are usually larger than effect sizes obtained in subsequent replication attempts.(Camerer et al., 2018) Moreover, reported effect sizes in published studies are usually lower when the analytical strategy was pre-registered compared to studies without pre-registered analysis protocol.(Allen & Mehler, 2018) Hence, meta-scientific research suggests that effect sizes are even more likely to be inflated in non-pre-registered studies, which is the case for all the studies reviewed below. Considering these uncertainties in extrapolating future effect sizes from previously reported effect sizes, in a third step, this Supplement documents power calculations which report the likelihood that the proposed study can detect effect sizes that are considerably lower than those reported in the existing literature. Hence, this calculation helps to assess the probability of detecting effect sizes that are small but substantially meaningful, irrespective of previously reported effect sizes.

The following sample size calculations employ a conservative approach. For one, the strategy behind the conducted power analysis targets at detecting effect sizes that are smaller than those in the published literature the power analysis. Moreover, the design can also be considered as conservative due to the statistical techniques that are employed. The statistical tests underlying the power analysis are simple tests of means and proportions (e.g. t-test) which yield unbiased estimates but do not make efficient use of the data. In contrast, in line with the pre-registered analysis pipeline the analyses conducted in the proposed study will include pre-treatment covariates in the model according to the Lin method which also yields unbiased but more precise estimates.(Lin, 2013) Hence, the power in the proposed study will be even higher than suggested in the following power analysis.

Overview of effect sizes in previously published studies

Hypothesis 1: Need-supportive situational contexts increase intrinsic political motivation.

Study by Bowed et al. (need for competence manipulation)

The experimental manipulation of the perceived situational satisfaction of the need for competence that is employed in the proposed study is inspired by a study by Bowed et al. who manipulated rankings in the leaderboard of an online game to induce varying levels of perceived competence and perceived enjoyment. Bowey et al. Specifically, players engaged in various rounds of an online game. After each of these rounds, the players were shown their relative success on a visual leaderboard. The participant's position on the leaderboard was randomly assigned, indicating either relative success or failure in the game. The study reports an effect size of $\eta^2=.15$ ($F_{1,135}=23.8$, $p<.001$) on perceived competence, which translates into **Cohen's d = 0.84**. The authors report an effect size of $\eta^2=.09$ ($F_{1,135}=11.9$, $p=.001$) on enjoyment (an indicator of intrinsic motivation) which translates into **Cohen's d = 0.63**. Hence, for the domain of computer games, the study by Bowed et al. provides effect estimates on two variables: perceived competence and intrinsic motivation. Both of these

variables are also measured in the proposed study. In the proposed study, perceived efficacy functions as a manipulation check of the need for competence manipulation. Intrinsic motivation functions as the dependent variable.

It remains uncertain whether the effect sizes will be larger or smaller as a result of the proposed study's different context. On the one hand, one might expect smaller sizes relative to the study by Bowed et al. as the participants in their study might have undergone a more immersive experience (playing several rounds of an online game) compared to the short knowledge quiz conducted in the proposed study. On the other hand, one might expect larger effect sizes than in the Bowed et al. study as the competence-related feedback regarding political knowledge might elicit stronger psychological responses than competence-related feedback on a generic computer game for two reasons. First, knowledge of political matters is widely regarded as socially desirable, therefore potentially triggering a sense of pride or shame. Second, assessing low levels of knowledge on political issues has greater environmental relevance compared to low skills on a generic computer game, thereby potentially having greater implications for the self-image of participants. Altogether, the study by Bowed et al. is one indicator of the effect sizes to expect regarding the need for competence manipulation. Nonetheless, it remains somewhat uncertain how the different study context may affect the effect sizes.

Need for competence and political interest

In the proposed study, the need for competence manipulation consists of two elements: both the difficulty of political knowledge questions and the feedback to political knowledge questions is manipulated. Prior research has established that each of these manipulations is capable of influencing a person's perceived competence and interest in politics. However, prior research has not employed both elements in combination. We may

expect that combining both elements yields additive and potentially multiplicative effects on intrinsic motivation.

Bishop 1987(Bishop, 1987) reports three studies, in which participants receive easy or hard political knowledge questions before responding to a political interest question. Bishop reports statistically significant differences in each of the studies at an effect size of **cohen's d = 0.39**, **cohen's d = 0.14** and **cohen's d = 0.22** respectively. Similarly, Lasorsa has shown in two studies(Lasorsa, 2003, 2009) that reported levels of political interest are markedly higher when preceded by fairly difficult political knowledge questions compared to no preceding political knowledge questions. In the first study,(Lasorsa, 2003) 206 out of 295 respondents (**70%**) reported high levels of political interest in the control condition whereas only 136 of 272 respondents (**50%**) reported high levels of political interest when the interest question was proceeded by fairly difficult political knowledge questions. In a second study, “**86.1%** of those who did not first encounter the political knowledge questions (n=353) reported high political interest, whereas only **74.1%** of those who encountered the knowledge questions (n=320) reported high interest ($X^2 = 18.96$, df = 1, Fisher's Exact Test, $p < .001$).”.(Lasorsa, 2009) Altogether, these studies suggest sizable effects on reported levels of political interest when the interest item was preceded by political knowledge questions that many respondents may have experienced as undermining their perceived levels of political competence. Note, however, that the stimuli in the reviewed studies were arguably weaker than the one intended in the proposed study. The Bishop et al. study only employs one of the experimental stimuli (varying difficulty of knowledge questions) intended to use in the proposed study. (The Bishop et al. study did not provide manipulated competence feedback). What is more, the studies by Larosorsa did not manipulate competence feedback and only compared an experimental group who either received knowledge questions with a control group who did not receive knowledge questions. In contrast, the proposed study will

administer hard vs. easy knowledge questions to both experimental groups, thereby amplifying differences between the experimental groups.

A study by Preece (Preece, 2016) provided manipulated competence feedback without manipulating item difficulty. Because the study does not report standard deviations of the experimental groups, it is not possible to estimate standardized effect sizes. However, it is apparent that the effect of manipulated competence feedback ('Great job! You did very well on this difficult quiz. Very few people do well on it.' vs no feedback) on political interest is sizeable. On a 5-point scale, the level of political interest increases from **1.92 to 2.31** (two-side p-value = 0.022). Note that, again, the experimental stimulus in the study by Preece is arguably weaker than in the proposed study. First, in the study by Preece, the praise-receiving group is compared to a control group who received no feedback whereas in the proposed study the second experimental group receives negative feedback, potentially undermining perceived competence. Second, the study by Preece only manipulated competence feedback but did not vary item difficulty in the knowledge quiz. With these caveats in mind, altogether the studies by Preece and Bishop show that the manipulation of what I interpret as one's situational satisfaction of need for competence has sizeable effects on a person's self-reported level of political interest.

Study by Grant/Berry (Need-for-autonomy manipulation, Aut-)

The no-choice condition intended to manipulate situational satisfaction of the need for autonomy is inspired by a study by Grant/Berry (Study 3) who offered participants to choose from two tasks (Grant & Berry, 2011). Whereas participants in both conditions of that study, in fact, solved the identical task, participants in the no-choice condition were told that the chosen task was not available anymore and that they would have to solve the less appealing task. Compared to participants who seemingly solved the task of their choice (mirroring

the control group in the proposed study), participants in the no-choice condition reported lower levels of intrinsic motivation after they concluded the task. The estimated effect size of the autonomy-thwarting manipulation on intrinsic motivation was **cohen's d=0.56**.

Study by Gillet et al. (Need-for-autonomy manipulation, Aut+)

The autonomy-supportive condition is modeled after examples in previous research which reported detectable effects of rehearsing intrinsic reasons for engagement on various outcomes such as well-being (Amabile; Burton et al., 2006; Gillet et al., 2013). Most closely related to the outcome variable of the proposed study is a study by Gillet et al. who examined the effects of rehearsing intrinsic reasons for solving an anagram task on the levels of intrinsic motivation reported by the participants after engaging in that task (Gillet et al., 2013). Mean levels of autonomous motivation increased from $M=3.38$ in the control condition to $M=4.07$ among respondents who experienced the autonomy-supportive manipulation, corresponding to an effect size of **Cohen's d=0.50**.

Meta-analysis on choice and intrinsic motivation (Need-for-autonomy manipulation, Aut-)

Meta-analyzing 41 studies on the role of choice in stimulating intrinsic motivation, Patall et al (Patall et al., 2008) found an average effect size of **cohen's d=0.36**. Using trim-and-fill analyses to account for publication bias, the meta-analysis suggests an overall effect size of **cohen's d=0.24**. However, whereas various of the studies included in the meta-analysis compare conditions in which choices or no choices were present the proposed study emphasizes controlling situational constraints by explicitly pointing participants in the no-choice conditions to the absence of choice, thereby potentially increasing the external locus of control and further increasing differences in need satisfaction between participants in the autonomy-undermining condition compared to the autonomy-supporting condition. Hence,

while the meta-analysis provides an indication of the relationship between choice and intrinsic motivation there is reason to expect that, mediated by need satisfaction, the provision of choice vs the absence of choice may exert stronger effects on intrinsic motivation in the proposed study compared to the meta-analysis.

H2: Need-supportive environment and frequency of political behavior

Various studies compare the proclivity to engage with a specific behavior in need-supportive vs. need-thwarting environments. A meta-analysis by Patal (Patal et al., 2008) on the relationship between autonomy-supportive contexts and the participants' willingness to continue an activity even when it is not required by the experimenter any more exhibits an effect size of **Cohen's d=0.29**.

H3/H4 Need-supportive context and quality of behavior

The tenet that need-supportive contexts facilitate behavioral performance is well established in the psychological literature albeit not yet applied to the political domain. A recent meta-analysis finds medium-sized effects of autonomy- and competence-supportive experimental manipulations on behavioral performance: "perceived autonomy emerged as a moderate predictor of performance ($k = 46$, $N = 11,937$, $q = .28$), and the absence of zero in the 95 % confidence interval indicates the population relationship between the two is positive (95 % CI = .23–.33). [...] Perceived competence emerged as the strongest need satisfaction predictor of performance ($k = 70$, $N = 20,924$, $q = .37$), and the absence of overlapping confidence intervals with both autonomy and relatedness needs indicates the effect is significantly larger than both (95 % CI = .34–.40)." (Cerasoli et al., 2016) In the following, we review those studies that resemble the experimental design of the proposed study most closely.

Autonomy-supportive condition and its influence on the quality of behavior (Aut+, H3b)

The autonomy-supportive condition is modeled after examples in previous research which showed detectable effects of rehearsing intrinsic reasons for engagement on various outcomes such as well-being. Amabile; Burton et al., 2006; Gillet et al., 2013. Most closely related to the outcome variable of the proposed study is a study by Kadous/Zhou (Kadous & Zhou, 2019) who prompted participants to rehearse reasons for auditing before the participants conducted said behavior. Kadous/Zhou show that participants engage in deeper information processing when conducting an audit task in the autonomy-supportive condition at effects sizes of **Cohen's d = 0.61** (DV: deep issues) and **Cohen's d = 0.55** (DV: total valid issues). Whereas the experimental stimulus of the proposed study and the study by Kadous/Zhou is similar, it should be noted that differences exist with regards to outcome variable and with regards to the experimental context. However, it is not self-evident whether these differences will impede or reinforce experimental effects.

Meta-analysis on choice and effort (Need-for-autonomy manipulation, Aut-)

Meta-analyzing twelve effect sizes on the role of choice in stimulating effort, Patall et al. (Patall et al., 2008) found an average effect size of **Cohen's d=0.22**. However, whereas various of the studies included in the meta-analysis compare condition in which the participants were given choices vs. were not given choices the proposed study emphasizes the controlling constraints of the situation more strongly by explicitly pointing participants in the no-choice conditions to the absence of choice, thereby potentially increasing the external locus of control and further increasing differences in need satisfaction between participants in the autonomy-undermining condition compared to the autonomy-supporting condition. Hence, there is reason to expect that, mediated by need satisfaction, the provision of choice vs the absence of choice may exert stronger effects on effort in the proposed study compared to the meta-analysis.

Study by Grant/Berry (Need-for-autonomy manipulation, Aut-)

The study by Grant/Berry (Grant & Berry, 2011) (Study 3) on creativity yielded an average effect size of autonomy-thwarting contexts (withdrawn vs. granted choice) of **Cohen's d = 0.41** on the quality of the behavioral task where quality (creativity) was as measured as the novelty and usefulness of business idea, rated by independent coders .

Overview of effect sizes

Table S3-1 provides an overview of the reported effect sizes in studies with experimental conditions that share certain features with the experimental stimuli administered in the proposed study. With the exception of the study by Bishop which reported small-sized effects, most of the studies report medium-sized effects. Note that several of the reported effect sizes relate to experimental treatments that are arguably weaker compared to the stimuli in the proposed study because, e.g., these studies only administered one element of the experimental stimuli to the participant whereas the proposed study combines multiple elements to enhance the experimental effects.

S3- 1. Overview of Effect Sizes in Existing Literature

Similar to hypothesis...	Similar to test...	Experi-mental Ma-nipulation	DV	Study	Effect size (Cohen's d)	Effect size (other metric)	Note
H1	2	Need for Competence	Intrinsic Motivation	Bishop	.39/.22	.14/	Weaker stimulus
H1	2	Need for Competence	Intrinsic Motivation	Lasorsa		70% vs 50% of exp. group report interest in politics	Weaker stimulus

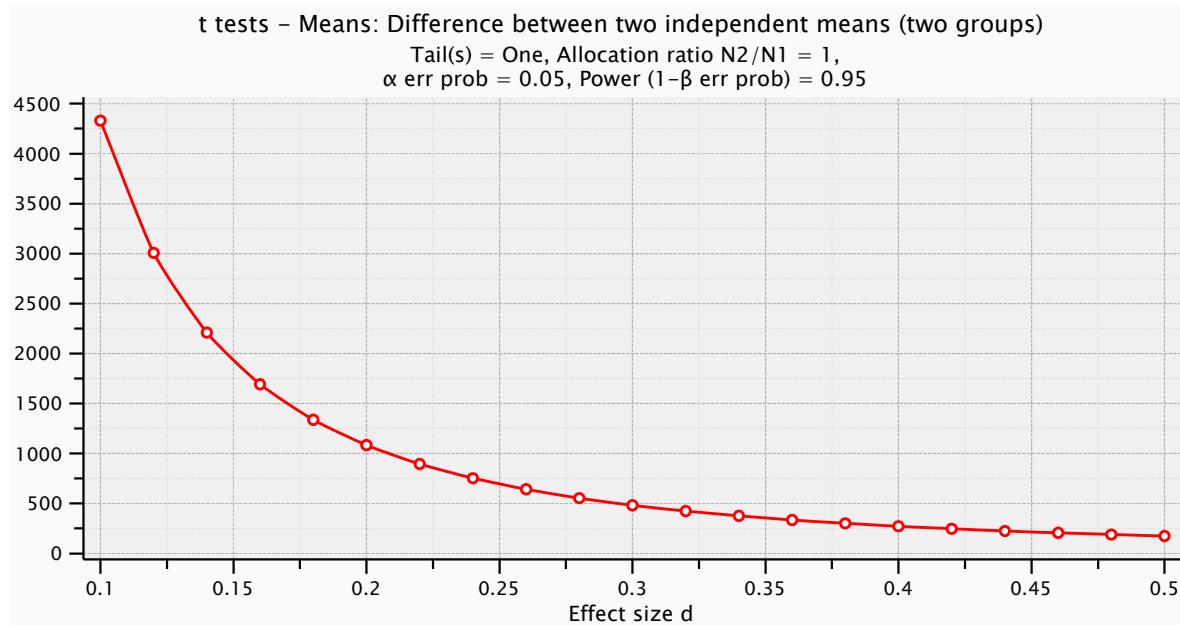
H1	2	Need for Competence	Intrinsic Motivation	Lasorsa		86% vs 74% of exp. group report interest in politics	Weaker stimulus
H1	2	Need for Competence	Intrinsic Motivation	Preece		1.92 vs 2.31 (p= 0.021) on a 5-point scale	Weaker stimulus
H1	4	Need for Competence	Intrinsic Motivation	Gillet et al.	.50		
H1	4	Need for Autonomy (No Choice)	Intrinsic Motivation	Grant/ Berry	.56		
H1	4	Need for Autonomy	Intrinsic Motivation	Patall	.24		Weaker stimulus
H2	6	Need for Autonomy	Frequency of Behavior	Patall	.29		
H3a	7 / 8	Need for Autonomy	Quality of behavior	Cerasoli		k = 70, N = 20,924, q = .37	Meta-analysis
H3b	9 / 10	Need for Competence	Quality of behavior	Cerasoli		k = 46, N = 11,937, q = .28	Meta-analysis
H3b	9	Need for Autonomy (Aut-supportive)	Quality of Behavior	Kadous/ Zhou	.61/ .55		
H4	13	Need for Autonomy (No Choice)	Quality of behavior	Patall	.22		DV: effort
H4	13	Need for Autonomy (No Choice)	Quality of behavior	Grant/Berry	.41		

Sample size estimation

Figure S3-1 shows the results of a power analysis conducted with G* Power 3.1. Figure 1 reports for various effect sizes the required sample sizes to detect an effect with a power of .95. Many of the effect sizes reported in previous studies are around or larger than Cohen's

$d=0.4$ which would correspond to a required $N=136$ per experimental condition (total $N=272$ with two experimental arms).

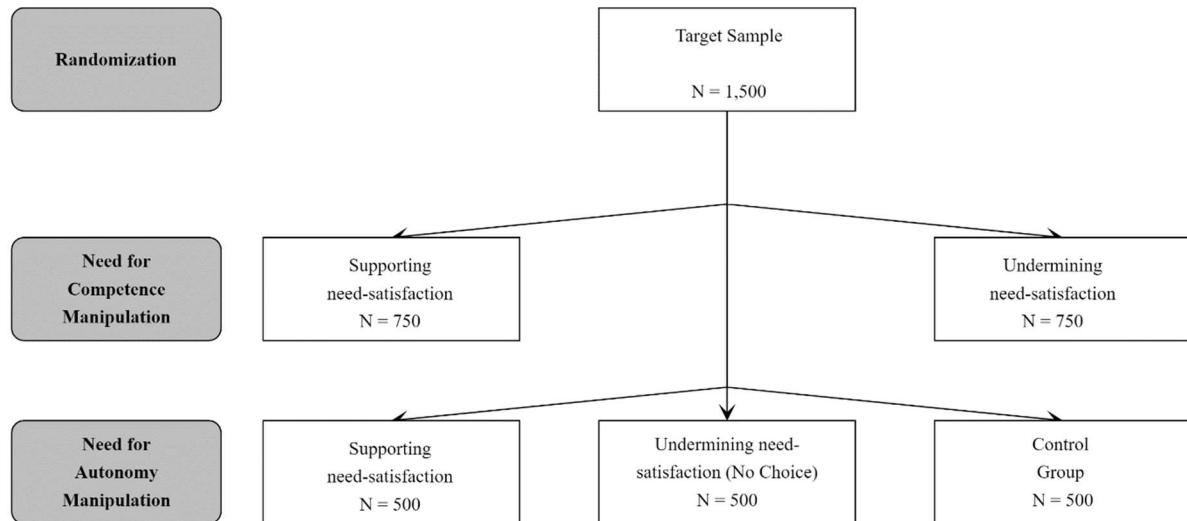
Figure S3-1 Detectable effect sizes at different sample sizes



However, because meta-scientific evidence suggests that the effect sizes reported in published studies are usually inflated compared to the true population parameter there is reason to plan with sample sizes that enable to detect effect sizes smaller than those reported in the existing literature. Considering financial and practical constraints, we are able to run the size a sample size of up to 1,500 participants. The following analyses will examine the lowest detectable effect sizes with a sample size of 1,500 participants at power=.95.

In these analyses, we need to consider that the experimental design of the proposed study consists of a three-arm design in the manipulation of the need for autonomy and of a two-arm design in the manipulation of the need for competence (see consort diagram in Figure 2).

Figure S3-2 Consort diagram showing the distribution of respondents across experimental groups

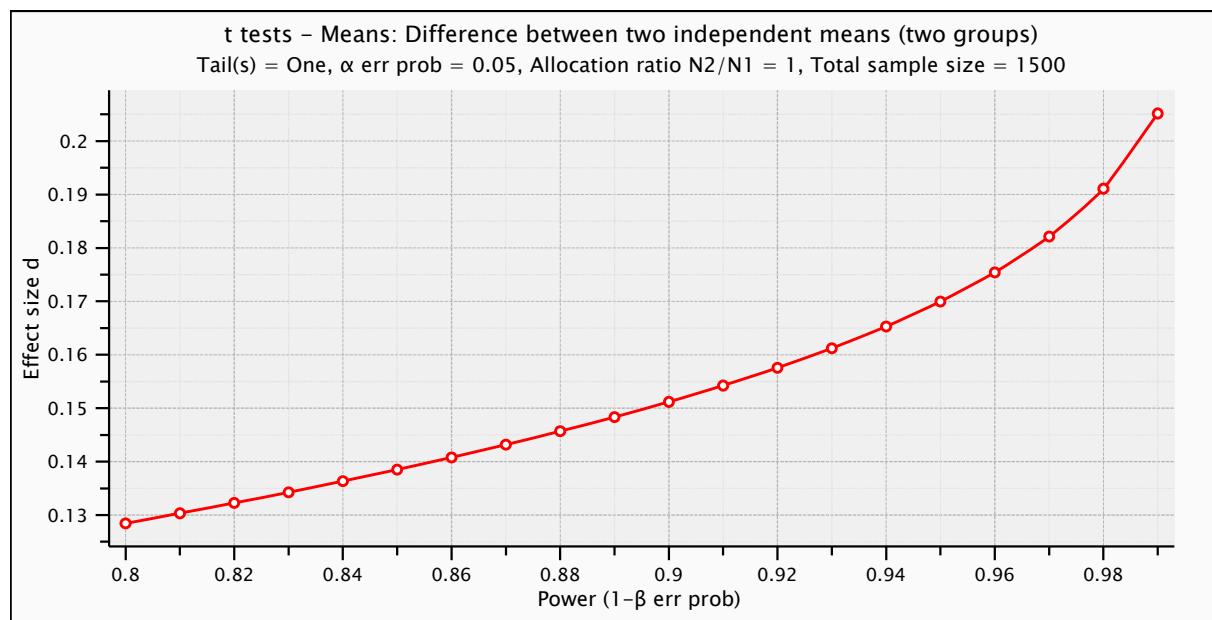


Because the need for autonomy manipulation consists of three experimental conditions, a total sample size of 1,500 corresponds to a size of $N=500$ of each experimental group in that experimental stage. Because the need for competence manipulation consists of two experimental conditions, a total sample size of 1,500 corresponds to a size of $N=750$ of each experimental group in that experimental stage. The fact that the experimental groups in the need for autonomy manipulation and in the need for competence manipulation have different sample sizes implies that the power to detect experimental effects differs between the need for competence manipulation and the need for autonomy manipulation.

Figures 3 and 4 depict power analyses for the need for competence manipulation. Specifically, Figure S3-3 and 4 show which effect sizes will be detectable with 750 respondents in each experimental group. Note that one-tailed tests are employed because the proposed study pre-specifies the direction of the expected experimental effects. The power analysis Figure 3 shows that an effect size as large as **Cohen's $d=0.17$** will be detectable at a power of .95. Hence, with great likelihood, the proposed study will be able to detect

experimental effects that are much lower than the effect sizes reported in previously published literature. In the same vein, if the effect sizes will be larger, then the experimental power to detect these effects will be above the .95. For instance, effect sizes as large as **Cohen's d=0.19** will be detectable at a power of .98.

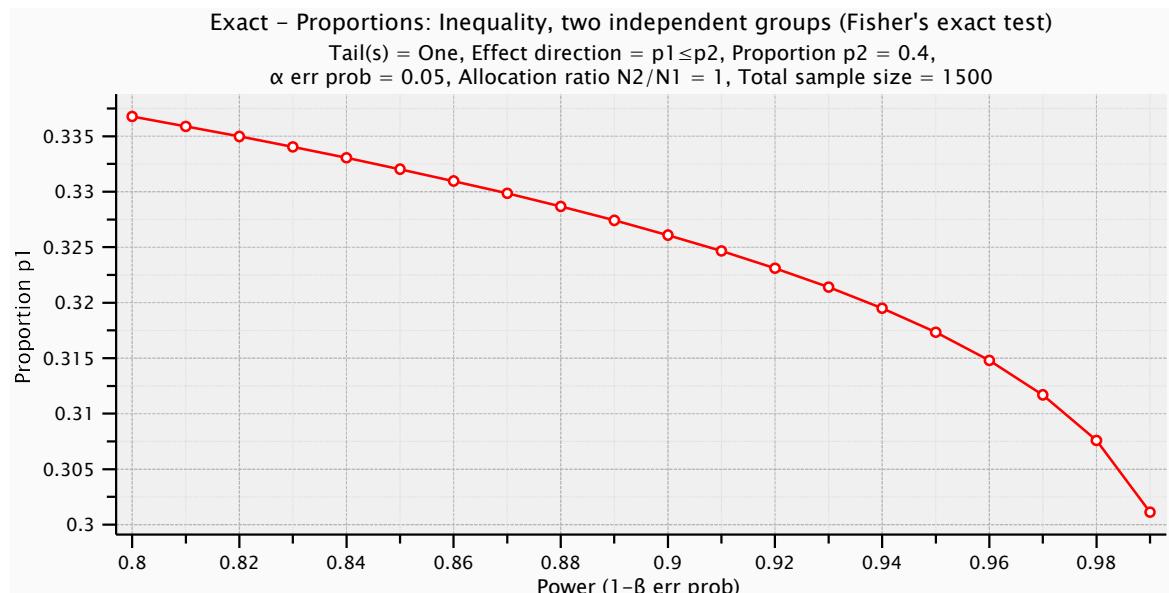
Figure S3-3 Power to detect a significant difference in means for need-for competence manipulation with 750 respondents in each experimental group



Various tests in the proposed study are conducted on binary dependent variables (see *S5: Overview of statistical tests*). Therefore, power analyses are required that take the dichotomous scale of the dependent variable into account. For instance, tests 5 and 6 assess whether individuals choose to watch political media vs. ostensibly non-political media content, captured in a binary variable. Hence, Figure C-4 depicts a power analysis to detect differences in proportions. Assuming that a proportion of 40% in one experimental group, the analysis will be able to detect differences between the groups at a power of .95 when the proportion in the other treatment group is at 31.7% or lower. Unfortunately, there is no prior literature available with a sufficiently similar research design that could inform about likely

effect sizes. However, the power analysis shows that the analysis will be able to detect differences in proportions between experimental groups that are substantially meaningful and reasonably close.

Figure S3-4 Power to detect a significant difference in proportions for need-for competence manipulation with 750 respondents in each experimental group



Figures S3-5 and S3-6 show power analysis for the need for autonomy manipulation in which each experimental group consists of 500 participants. Hence, the detectable effect sizes at a power of .95 slightly larger compared to the need for competence manipulation. For instance, at a power of .95 the analysis will be able to detect mean differences that correspond to effect sizes as large Cohen's = .208. Hence, the detectable effect sizes in the need for autonomy manipulation are still smaller than the effect sizes reported in previous literature, particularly when taking into account that previous studies often administered arguably weaker experimental stimuli. Figure 6 shows that the analysis will be able to detect differences in proportion when the proportion in one experimental group is at 40%, and the proportion in the other experimental group is at 29.9% or smaller.

Figure S3-5 Power to detect a significant difference in means for need for autonomy manipulation with 500 respondents in each experimental group

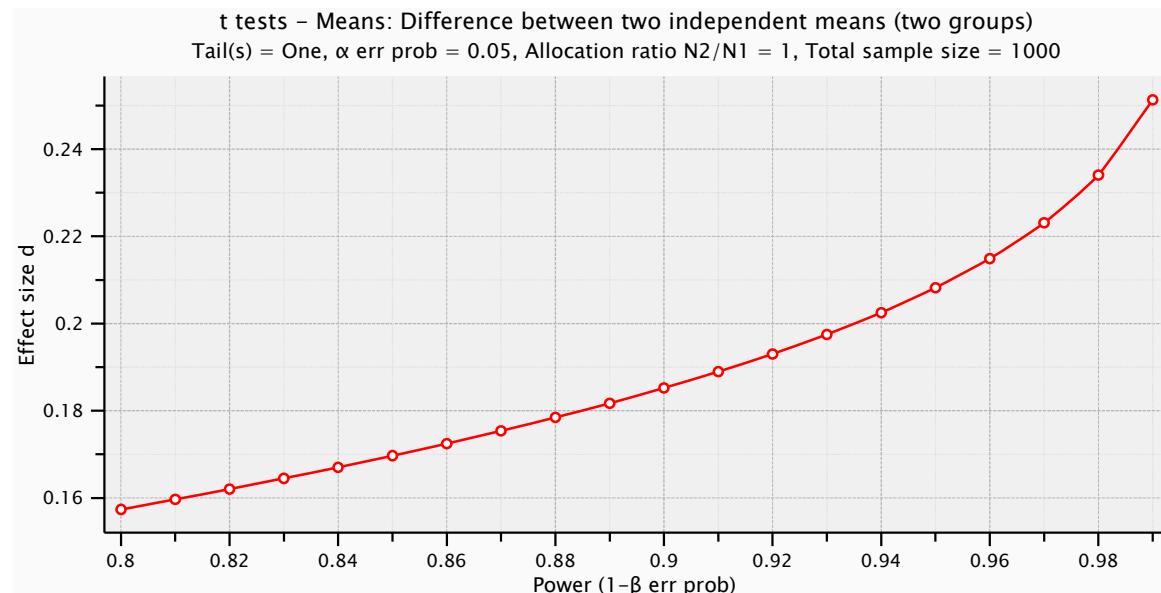
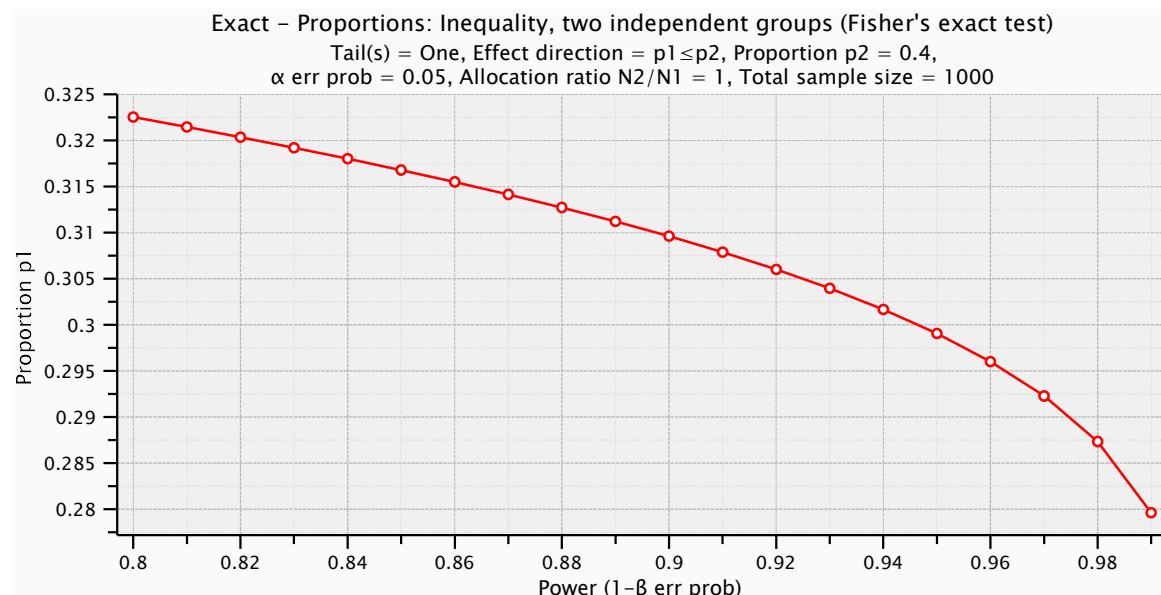


Figure S3-6 Power to detect a significant difference in proportions for need for autonomy manipulation with 500 respondents in each experimental group



S4: Main effect estimation using logit

In the main text, linear regression analysis was used to estimate treatment effects on all types of outcomes variables, regardless of whether the outcome variable was dichotomous or continuous. With experimental designs, linear regression is recommended to estimate treatment effects on both binary outcomes and continuous outcomes (Gomila, 2019). This is the case because, in the context of experimental designs, linear regression analyses does not yield biased estimates even for binary outcomes but retains the advantages of linear regressions (e.g., regarding interpretability) over logistic regressions. However, for the sake of transparency and completeness, this Supplement reports the results of the main analyses of treatment effects using logistic regressions. The Supplement reports results from both results from linear and logistic regressions, using a simplified model with two-sided significance tests that includes the pre-registered list of covariates (omitted in output) without interaction terms or robust standard errors. The test number reported in Table 4-1 corresponds to the numbering of all pre-registered tests as outlined in S5: Overview of statistical tests.

Table 4-1: Estimates on main treatment effects

Test #	Outcome	Treatment	Linear (b)	Logit (OR)
1	Intrinsic Motivation: Behavioral	Competence	.021 [-.029; .0721]	1.097 [.879; 1.368]
3	Intrinsic Motivation: Behavioral	Autonomy- supportive	.023 [-.039; .085]	1.108 [.845; 1.452]
5	Frequency	Competence	.015 [-.032; .064]	1.080 [.860; 1.358]
6	Frequency	Autonomy- supportive	.052 [-.005; .109]	1.275 [.964; 1.686]
13	Frequency	Autonomy-thwarting	.224 [.167; .280]	3.033 [2.265; 4.060]

Note: Shown a b-coefficients for linear regression analysis and odds ratios for logistic regression analysis with 95%-confidence intervals.

S5: Overview of statistical tests

Because multiple measurement instruments will be employed to assess the concepts of interest and because multiple hypotheses will be tested, in total 16 statistical tests will be conducted. Table S5-1 lists all statistical tests that will be conducted. Table S5-1 is used a reference in the pre-registered analysis pipeline (Stata syntax).

Table S5-1 Power to detect a significant difference in proportions for need for autonomy manipulation with 500 respondents in each experimental group

Test Name	Test #	Hyp	DV	Compared Groups
Int-Mot-Behav-Comp	1	H1: Need-supportive situational contexts increase intrinsic political motivation.	Intrinsic Motivation: Behavioral Indicator	Comp+ vs Comp-
Int-Mot-SelfRep-Comp	2	H1: Need-supportive situational contexts increase intrinsic political motivation.	Intrinsic Motivation: Self-reported	Comp+ vs Comp-
Int-Mot-Behav-Aut	3	H1: Need-supportive situational contexts increase intrinsic political motivation.	Intrinsic Motivation: Behavioral Indicator	Aut+ vs. Aut-
Int-Mot-SelfRep-Comp	4	H1: Need-supportive situational contexts increase intrinsic political motivation.	Intrinsic Motivation: Self-reported	Aut+ vs. Aut-
Quant-Comp	5	H2a: Individuals who previously experienced the political domain as satisfying their need for competence, want to engage with politics more frequently	Quantity of Engagement: Choice of Political Media Content (yes/no)	Comp+ vs Comp-

		than individuals with need-thwarting domain-related experiences. H2b: Individuals in an autonomy-supportive context want to engage with politics more frequently than individuals in neutral situational contexts. H3a: Individuals who previously experienced the political domain as satisfying their need for competence, are more inclined to invest cognitive efforts in processing the political information conveyed in the video than individuals with need-thwarting domain-related experiences.		
Quant-Aut	6	H2b: Individuals in an autonomy-supportive context want to engage with politics more frequently than individuals in neutral situational contexts. H3a: Individuals who previously experienced the political domain as satisfying their need for competence, are more inclined to invest cognitive efforts in processing the political information conveyed in the video than individuals with need-thwarting domain-related experiences.	Quantity of Engagement: Choice of Political Media Content (yes/no)	Aut+ vs. Control
Qual-Subj-Comp	7	H3a: Individuals who previously experienced the political domain as satisfying their need for competence, are more inclined to invest cognitive efforts in processing the political information conveyed in the video than individuals with need-thwarting domain-related experiences.	Quality of Engagement: Subj. Measure of Effort	Comp+ vs Comp-
Qual-Obj-Comp	8	H3a: Individuals who previously experienced the political domain as satisfying their need for competence, are more inclined to invest cognitive efforts in processing the political information conveyed in the video than individuals with need-thwarting domain-related experiences.	Quality of Engagement: Objective Measure of Effort	Comp+ vs Comp-
Qual-Obj-Comp	9	H3a: Individuals who previously experienced the political domain as satisfying their need for competence, are more inclined to invest cognitive efforts in processing the political information conveyed in the video than individuals with need-thwarting domain-related experiences.	Quality of Engagement: Behavioral Measure of Effort	Comp+ vs Comp-

		competence, are more inclined to invest cognitive efforts in processing the political information conveyed in the video than individuals with need-thwarting domain-related experiences.		
Qual-Subj-Aut	10	<p>H3b: Individuals in autonomy-supportive contexts are more inclined to invest cognitive efforts in processing the political information conveyed in the video than individuals in neutral situational contexts.</p> <p>H3b: Individuals in autonomy-supportive contexts are more inclined to invest cognitive efforts in processing the political information conveyed in the video than individuals in neutral situational contexts.</p>	Quality of Engagement: Behavioral Measure of Effort	Aut+ vs. Control
Qual-Subj-Aut	11	<p>H3b: Individuals in autonomy-supportive contexts are more inclined to invest cognitive efforts in processing the political information conveyed in the video than individuals in neutral situational contexts.</p> <p>H3b: Individuals in autonomy-supportive contexts are more inclined to invest cognitive efforts in processing the political information conveyed in the video than individuals in neutral situational contexts.</p>	Quality of Engagement: Subj. Measure of Effort	Aut+ vs. Control
Qual-Obj-Aut	12	<p>H3b: Individuals in autonomy-supportive contexts are more inclined to invest cognitive efforts in processing the political information conveyed in the video than individuals in neutral situational contexts.</p>	Quality of Engagement: Objective Measure of Effort	Aut+ vs. Control

Quant-No-Choice	13	H4: Forcing individuals into political engagement will increase the frequency of political engagement but will decrease the level of cognitive involvement. H4: Forcing individuals into political engagement will increase the frequency of political engagement but will decrease the level of cognitive involvement.	Quantity of Engagement: Coice of Political Media Content (yes/no)	Aut- vs. Control
Qual-No-Choice	14	H4: Forcing individuals into political engagement will increase the frequency of political engagement but will decrease the level of cognitive involvement. H4: Forcing individuals into political engagement will increase the frequency of political engagement but will decrease the level of cognitive involvement.	Quality of Engagement: Subj. Measure of Effort	Aut- vs. Control
Qual-No-Choice	15	H4: Forcing individuals into political engagement will increase the frequency of political engagement but will decrease the level of cognitive involvement. H4: Forcing individuals into political engagement will increase the frequency of political engagement but will decrease the level of cognitive involvement.	Quality of Engagement: Objective Measure of Effort	Aut- vs. Control
Qual-No-Choice	16	H4: Forcing individuals into political engagement will increase the frequency of political engagement but will decrease the level of cognitive involvement.	Quality of Engagement: Behav Measure of Effort	Aut- vs. Control

Notes: Abbreviations for experimental conditions: Aut+ = autonomy-supportive condition; Aut- = No Choice Condition; Control = Control Group (Autonomy Condition); Comp+ = need-for-competence-supportive condition; Comp - = need-for-competence-thwarting condition

S6: Transparency Report

To improve and document the transparency of research reports in social and behavioral research, various authors (Aczel et al., 2019) have developed a consensus-based transparency check list. The responses below document the study's degree of transparency according to v1 of the transparency check list.

PREREGISTRATION SECTION

- (1) Prior to analyzing the complete data set, a time-stamped preregistration was posted in an independent, third-party registry for the data analysis plan. **Yes**
- (2) The manuscript includes a URL to all preregistrations that concern the present study. **Yes**
- (3) The study was preregistered... **before any data were collected**

The preregistration fully describes...

- (4) all inclusion and exclusion criteria for participation (e.g., English speakers who achieved a certain cutoff score in a language test). **Yes**
- (5) all procedures for assigning participants to conditions. **Yes**
- (6) all procedures for randomizing stimulus materials. **Yes**
- (7) any procedures for ensuring that participants, experimenters, and data-analysts were kept naive (blinded) to potentially biasing information. **Yes**
- (8) a rationale for the sample size used (e.g., an a priori power analysis). **Yes**
- (9) the measures of interest (e.g., friendliness). **Yes**
- (10) all operationalizations for the measures of interest (e.g., a questionnaire measuring friendliness). **Yes**
- (11) the data preprocessing plans (e.g., transformed, cleaned, normalized, smoothed). **Yes**
- (12) how missing data (e.g., dropouts) were planned to be handled. **Yes**
- (13) the intended statistical analysis for each research question (this may require, for example, information about the sidedness of the tests, inference criteria, corrections for multiple testing, model selection criteria, prior distributions etc.). **Yes**

METHODS SECTION

The manuscript fully describes...

- (14) the rationale for the sample size used (e.g., an a priori power analysis). **Yes**
- (15) how participants were recruited. **Yes**
- (16) how participants were selected (e.g., eligibility criteria). **Yes**
- (17) what compensation was offered for participation. **No**
- (18) how participant dropout was handled (e.g., replaced, omitted, etc). **Yes**
- (19) how participants were assigned to conditions. **Yes**
- (20) how stimulus materials were randomized. **Yes**
- (21) whether (and, if so, how) participants, experimenters, and data-analysts were kept naïve to potentially biasing information. **Yes**
- (22) the study design, procedures, and materials to allow independent replication. **Yes**
- (23) the measures of interest (e.g., friendliness). **Yes**
- (24) all operationalizations for the measures of interest (e.g., a questionnaire measuring friendliness). **Yes**
- (25) any changes to the preregistration (such as changes in eligibility criteria, group membership cutoffs, or experimental procedures)? **Yes**

RESULTS AND DISCUSSION SECTION

The manuscript...

- (26) distinguishes explicitly between “confirmatory” (i.e., prespecified) and “exploratory” (i.e., not prespecified) analyses. **Yes**
- (27) describes how violations of statistical assumptions were handled. **No**
- (28) justifies all statistical choices (e.g., including or excluding covariates; applying or not applying transformations; use of multi-level models vs. ANOVA). **Yes**
- (29) reports the sample size for each cell of the design. **Yes**
- (30) reports how incomplete or missing data were handled. **No**
- (31) presents protocols for data preprocessing (e.g., cleaning, discarding of cases and items, normalizing, smoothing, artifact correction). **Yes**

DATA, CODE, AND MATERIALS AVAILABILITY SECTION

The following have been made publicly available...

- (32) the (processed) data, on which the analyses of the manuscript were based. **Yes**
- (33) all code and software (that is not copyright protected). **Yes**
- (34) all instructions, stimuli, and test materials (that are not copyright protected). **Yes**
- (35) Are the data properly archived (i.e., would a graduate student with relevant background knowledge be able to identify each variable and reproduce the analysis)? **Yes**
- (36) The manuscript includes a statement concerning the availability and location of all research items, including data, materials, and code relevant to the study. **Yes**

S7: Deviations from pre-registration plan

The pre-registered analysis plan was based on the expectation of theory-consistent treatment effects. Because these effects mostly did not materialize, a variety of posthoc exploratory analyses were conducted to make sense of the unexpected absence of treatment effects. These exploratory analyses are the most notable extension to the pre-registered analyses.

All of the pre-registered analyses are reported in the main text. However, some modifications to the pre-registered analysis pipeline were necessary. Because the pre-registered analysis syntax was only tested on simulated survey responses, several coding mistakes went unnoticed and only became apparent after data collection. Because in each case a clearly superior coding strategy was apparent, I deviated from the pre-registered analysis plan and fixed the mistakes:

Recoding

- Survey Software *Unipark* saves variables as '0' when a participant did not respond to a survey item. These responses need to be coded as missing values, which was not accounted for in the pre-registered analysis syntax.
- Initially, the survey questionnaire contained one non-reverse-coded and one reverse-coded item on internal political efficacy. In the course of questionnaire development, the items were modified so that in the final version, none of the items were reverse-coded. This change before data collection was not accounted for in the pre-registered analysis syntax.
- To avoid cells with very low numbers on the pre-registered pre-treatment covariates, I recoded the variables on participant para data (operating system, participant device type) after data collection had shown the actual distribution of participants across cells. Note that these observational covariates were only included to reduce variability in the outcome measure, and they do not bias the estimated treatment effects.
- In the pre-registered analysis syntax, not all pre-treatment covariates were standarized as was intended to adopt the method suggested by Lin (2013).

- The behavioral measure of intrinsic motivation had the values 1 and 2 in the pre-registered analysis syntax and was recoded to the values of 0 and 1.
- Due to an oversight, the pre-registered analysis syntax contained an error when recoding the treatment indicator for the need-thwarting condition.

Analysis

- The ‘post’ option of the -margins- command was missing in the pre-registered analysis syntax so that the calculation of the one-sided significance tests was erroneous.
- In several cases, the one-sided significance tests were coded in the wrong direction. (Due to the absence of the expected treatment effects the substantive conclusion does not change.)

S8: Treatment-induced attrition and imputation

The main text reported evidence that suggested that the competence manipulation might have affected the probability to complete the survey. As a result, missing values on the outcome variables might be affected by treatment status, which may induce bias in the estimation of the experimental treatment effects. The main text reports analyses that show what happens when we impute missing values. In all analyses, values were imputed for as many respondents necessary so that in both treatment conditions, there would be an equal share of respondents with non-missing values. Respondents for imputation were drawn randomly from all respondents in the need-thwarting group with missing value on the respective outcome variable. Table S8-1 shows, for each outcome variables, details of the imputation process and the estimated effect size of the need for competence manipulation on the imputed outcome variable.

S8- 1 Imputation of Outcome Variables and Experimental Tests

Outcome		Number of Imputed Respondents with Imputations	Value	p-value of effect on imputed outcome	p-value of effect on imputed outcome	Cohen's d
Quality (Behavioral)		37	30 (seconds)	.83	.88	-
Quality (Subjective)		59	1 (Lowest possible value)	.00001	.17	0.24
Intrinsic Motivation (Self-reported)		59	1 (Lowest possible value)	.002	.73	0.15

S9: Heterogeneous treatment effects using random forests

To detect treatment heterogeneity, I conducted causal forest analyses using grf package version 0.10.4. The number of trees to be calculated was set to 4,000, using automated tune-parameters and leaving the remaining model options on default values. Because the manipulation checks for the autonomy-related conditions failed, analyses of treatment heterogeneity were only conducted for the competence manipulation. Table S9-1 shows the p-value of an omnibus test of whether the null hypothesis of no treatment heterogeneity can be rejected, suggested no evidence for treatment heterogeneity in any of the tests.

S9-1 Imputation of Outcome Variables and Experimental Tests

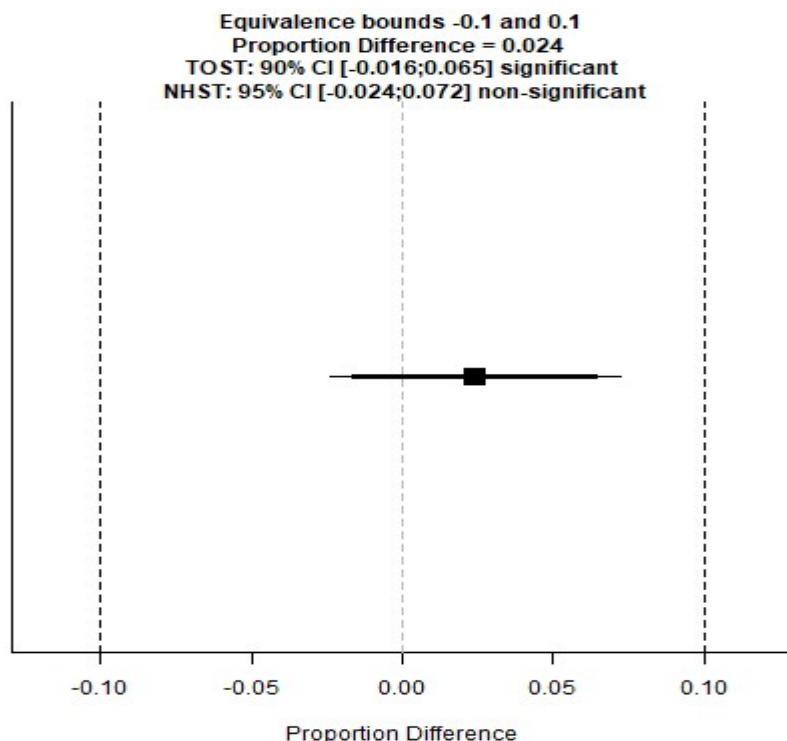
Outcome	p-value
Frequency	0.86
Intrinsic Motivation (Behavioral)	1.00
Intrinsic Motivation (Subjective)	0.64
Quality (Objective)	0.99
Quality (Subjective)	0.98

S10: Equivalence tests

To conduct equivalence tests, it is necessary to specify the ‘smallest effect size of interest’ (SESOI) that needs to be reasoned for each test of interest. The following plots show the results of equivalence for each test with the respective SESOI. Because the manipulation checks for the autonomy-related conditions failed, equivalence tests were only conducted for the competence manipulation

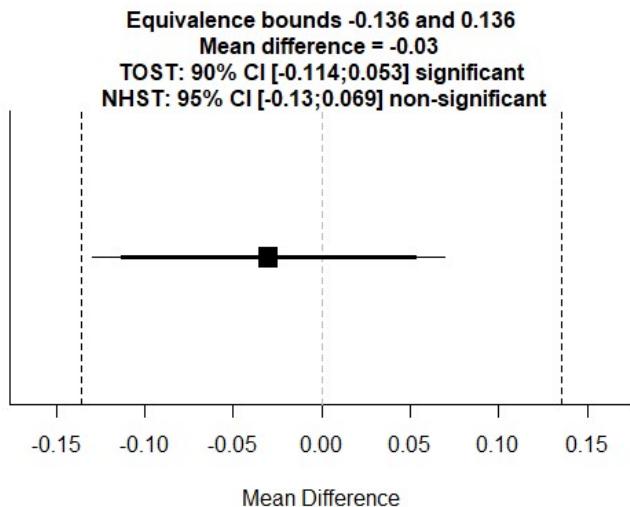
Test	I
DV	Intrinsic Motivation: Behavioral Indicator
SESOI	10%
Justification	Even lower than suggested in previous experiment
Result	Statistical equivalence

S10-I Equivalence test



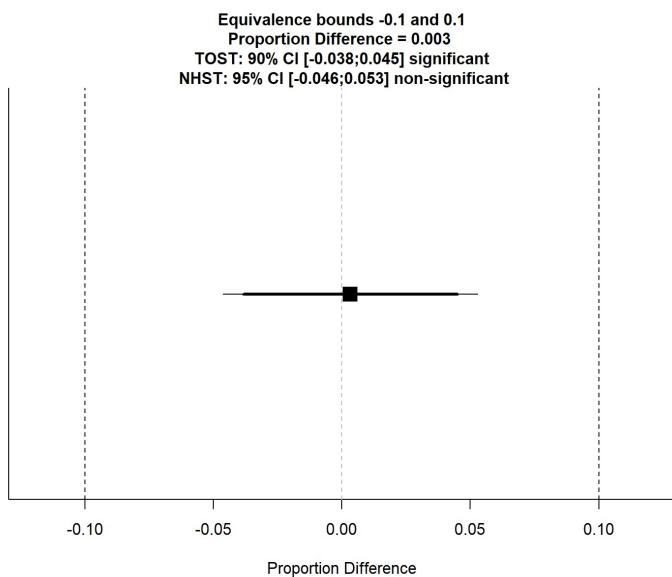
Test	2
DV	Intrinsic Motivation: Self-reported
SESOI	0.14
Justification	Lowest effect estimate retrieved in previous studies
Result	Statistical equivalence

S10-2 Equivalence test



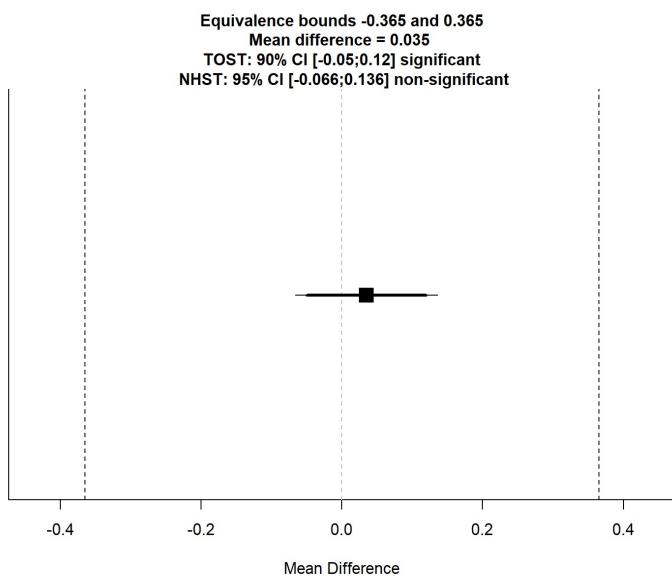
Test	5
DV	Quantity of Engagement
SESOI	10%
Result	Statistical equivalence

S10-3 Equivalence test



Test	7
DV	Quality of Engagement: Subj. Measure of Effort
SESOI	half a scale point
Result	Statistical equivalence

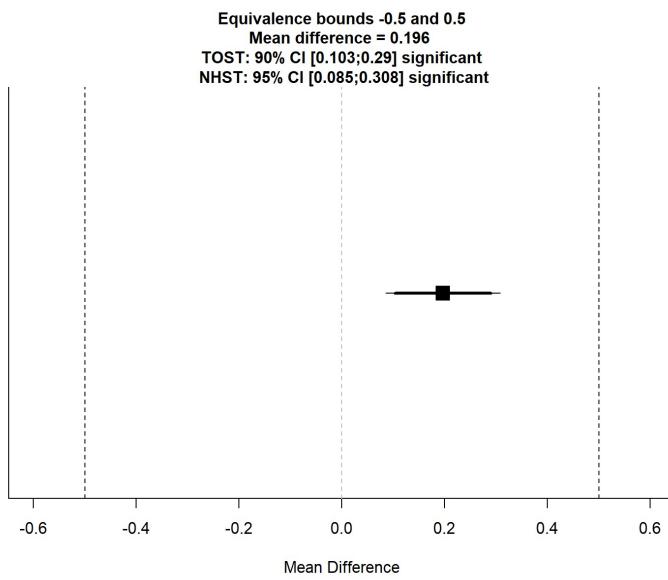
S10-4 Equivalence test



Test	8
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DV	Quality of Engagement: Objective Measure of Effort
SESOI	difference of 0.5 more /fewer correct responses
Result	Statistical equivalence

S10-4 Equivalence test



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