25/09/2026 · Sélection d'articles rassemblés autour de la thématique suivante :

Illusion sociale numérique : protocoles, mécanismes et impacts de la co-présence virtuelle sur les comportements humains

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Ces articles montrent comment **la présence d'autrui (réelle ou simulée)** dans un espace numérique **modifie les réactions et les comportements des utilisateurs.**
Techniquement, ces articles peuvent nous donner un exemple de comment **induire un sentiment de co-présence** à l'aide de visuels ou d'indications textuelles (compteurs, voyants en direct, avatars, notifications...).
Les comportements et réactions physiologiques étudiés sont divers: variations de stress, des modifications du niveau de confiance ou des mécanismes de synchronisation...
Exemple qui permettent aussi d'étudier si les effets de ces interactions numériques se prolongent **au-delà de l'expérience numérique**, en influençant les performances orales, la confiance en soi ou les habitudes de santé dans le quotidien des participants...

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ARTICLE 1 / 13

Syncing online: A methodological investigation into movement synchrony, proxemics, and self-other blurring in virtual spaces.

Biswas M, Brass M

Biswas M, Brass M (2024). Syncing online: A methodological investigation into movement synchrony, proxemics, and self-other blurring in virtual spaces.. PLoS One, 19(10), e0308843. https://doi.org/10.1371/journal.pone.0308843

RÉSUMÉ

A growing body of literature has found that synchronising movements with a group subsequently increases self-other blurring and social closeness with synchronised partners. However, movement synchrony has not been studied in online settings. Our study has a primarily methodological focus to investigate whether synchronous movement leads to changes in self-other blurring and proxemics in an online, desktop-mediated environment. We conducted two experiments to manipulate synchrony with a group of virtual agents and investigate its impact on self-other blurring and comfort distance judgments. In Experiment 1, we compared synchronous movement to a no-movement condition; in Experiment 2, we introduced an unpredictable movement condition. In both experiments, we found that our manipulation of synchronous movement between participants and a virtual group of agents led to an increase in explicit self-other blurring compared to the no and unpredictable movement conditions; however, we did not find reliable effects on comfort distance judgments.

INTÉRÊT POUR NOTRE THÉMATIQUE

Article intéressant afin d'avoir un exemple de protocole permettant de manipuler le sentiment d'appartenance à un groupe (à l'aide de la synchronie) et mesurer l'impact sur un espace péripersonnel numérique via des avatars.

ARTICLE 2 / 13

Interaction matters: Co-viewing facilitates learning from live video streaming for elementary students.

Liu C, Wang L, Pi Z, Yang J

Liu C, Wang L, Pi Z, Yang J (2023). Interaction matters: Co-viewing facilitates learning from live video streaming for elementary students.. Educ Inf Technol (Dordr), 1-25. https://doi.org/10.1007/s10639-023-11920-4

RÉSUMÉ

With the development of information technology, co-viewing of live video streaming (LVS) has become a popular online learning method. However, existing studies have found inconsistent results regarding the effects of co-viewing, which could be due to the impact of learner-learner interactions. The present study tested the effects of co-viewing LVS on learning in elementary students, and whether learner-learner interaction moderated students' attention allocation, learning performance (i.e., retention and transfer), learning efficiency, and metacognition. The study used a one-way between-subjects design, with 86 participants assigned randomly to one of three groups: learning alone group, merely co-viewing group, or co-viewing with interaction group. Kruskal-Wallis tests showed that students in the co-viewing with interaction group allocated more attention to their co-viewer and less to the LVS. However, ANOVA results indicated that they had the best learning performance and metacognition, and demonstrated the highest learning efficiency. Meanwhile, those co-viewing without interaction did not show significantly positive effects compared to those learning alone. The results of informal interviews were largely consistent with the above findings. The findings of the present study suggest the benefits of co-viewing with interaction, providing practical implications for the social context of learning from LVS for elementary students in particular.

INTÉRÊT POUR NOTRE THÉMATIQUE

Cas où la simple présence d'un autre n'apporte rien au niveau de l'apprentissage, par rapport à la présence + interaction.

Est-ce que l'effet d'une co-attention sur l'attitude peut-être durable (effet à long terme) et donc s'inscrire dans un apprentissage "efficace" s'il n'y a pas d’interaction ?

ARTICLE 3 / 13

Perception is Only Real When Shared: A Mathematical Model for Collaborative Shared Perception in Human-Robot Interaction.

Matarese M, Rea F, Sciutti A

Matarese M, Rea F, Sciutti A (2022). Perception is Only Real When Shared: A Mathematical Model for Collaborative Shared Perception in Human-Robot Interaction.. Front Robot AI, 9, 733954. https://doi.org/10.3389/frobt.2022.733954

RÉSUMÉ

Partners have to build a shared understanding of their environment in everyday collaborative tasks by aligning their perceptions and establishing a common ground. This is one of the aims of shared perception: revealing characteristics of the individual perception to others with whom we share the same environment. In this regard, social cognitive processes, such as joint attention and perspective-taking, form a shared perception. From a Human-Robot Interaction (HRI) perspective, robots would benefit from the ability to establish shared perception with humans and a common understanding of the environment with their partners. In this work, we wanted to assess whether a robot, considering the differences in perception between itself and its partner, could be more effective in its helping role and to what extent this improves task completion and the interaction experience. For this purpose, we designed a mathematical model for a collaborative shared perception that aims to maximise the collaborators' knowledge of the environment when there are asymmetries in perception. Moreover, we instantiated and tested our model a real HRI scenario. The experiment consisted of a cooperative game in which participants had to build towers of Lego bricks, while the robot took the role of a suggester. In particular, we conducted experiments using two different robot behaviours. In one condition, based on shared perception, the robot gave suggestions by considering the partners' point of view and using its inference about their common ground to select the most informative hint. In the other condition, the robot just indicated the brick that would have yielded a higher score from its individual perspective. The adoption of shared perception in the selection of suggestions led to better performances in all the instances of the game where the visual information was not common to both agents. However, the subjective evaluation of the robot's behaviour did not change between conditions.

INTÉRÊT POUR NOTRE THÉMATIQUE

En introduction pour montrer que même si la personne a conscience que la co-présence d'autres agents est simulés, cela a tout de même des conséquences.

> Les êtres humains sont tout à fait capables d'exploiter spontanément des mécanismes de perception partagée avec un robot, de la même manière qu'ils le font avec un autre humain. L'article présente l'influence d'un agent robotique (présence sociale physique/incarnée) sur la prise de décision humaine avec une interaction extrêmement minimaliste : le robot iCub ne parle pas, il communique uniquement par des mouvements du regard (signaux non verbaux). Une simple présence et des micro-interactions amène à une modification du comportement, un phénomène de confiance spontanées et une influence implicite.

ARTICLE 4 / 13

The broadcast of shared attention and its impact on political persuasion.

Shteynberg G, Bramlett JM, Fles EH, Cameron J

Shteynberg G, Bramlett JM, Fles EH, Cameron J (2016). The broadcast of shared attention and its impact on political persuasion.. J Pers Soc Psychol, 111(5), 665-673. https://doi.org/10.1037/pspa0000065

RÉSUMÉ

In democracies where multitudes yield political influence, so does broadcast media that reaches those multitudes. However, broadcast media may not be powerful simply because it reaches a certain audience, but because each of the recipients is aware of that fact. That is, watching broadcast media can evoke a state of shared attention, or the perception of simultaneous coattention with others. Whereas past research has investigated the effects of shared attention with a few socially close others (i.e., friends, acquaintances, minimal ingroup members), we examine the impact of shared attention with a multitude of unfamiliar others in the context of televised broadcasting. In this paper, we explore whether shared attention increases the psychological impact of televised political speeches, and whether fewer numbers of coattending others diminishes this effect. Five studies investigate whether the perception of simultaneous coattention, or shared attention, on a mass broadcasted political speech leads to more extreme judgments. The results indicate that the perception of synchronous coattention (as compared with coattending asynchronously and attending alone) renders persuasive speeches more persuasive, and unpersuasive speeches more unpersuasive. We also find that recall memory for the content of the speech mediates the effect of shared attention on political persuasion. The results are consistent with the notion that shared attention on mass broadcasted information results in deeper processing of the content, rendering judgments more extreme. In all, our findings imply that shared attention is a cognitive capacity that supports large-scale social coordination, where multitudes of people can cognitively prioritize simultaneously coattended information. (PsycINFO Database Record

INTÉRÊT POUR NOTRE THÉMATIQUE

Utilisation d'un faux site web qui imitait fidèlement l'interface graphique d'une grande chaîne d'information par câble américaine bien connue, diffusant des discours politiques depuis le Congrès des États-Unis.

Utilisation d'un compteur pour simuler le co-visionnage (soit en direct, soit différé)

Protocole à reproduire avec système français?

Pourquoi pas en étudiant l'effet à long terme avec questionnaire pour mesurer l'attitude X mois

> après.

ARTICLE 5 / 13

Inter-brain synchronization occurs without physical co-presence during cooperative online gaming.

Wikström V, Saarikivi K, Falcon M, Makkonen T, Martikainen S, Putkinen V, Cowley BU, Tervaniemi M

Wikström V, Saarikivi K, Falcon M, Makkonen T, Martikainen S, Putkinen V, Cowley BU, Tervaniemi M (2022). Inter-brain synchronization occurs without physical co-presence during cooperative online gaming.. Neuropsychologia, 174, 108316. https://doi.org/10.1016/j.neuropsychologia.2022.108316

RÉSUMÉ

Inter-brain synchronization during social interaction has been linked with several positive phenomena, including closeness, cooperation, prosociality, and team performance. However, the temporal dynamics of inter-brain synchronization during collaboration are not yet fully understood. Furthermore, with collaboration increasingly happening online, the dependence of inter-brain phase synchronization of oscillatory activity on physical presence is an important but understudied question. In this study, physically isolated participants performed a collaborative coordination task in the form of a cooperative multiplayer game. We measured EEG from 42 subjects working together as pairs in the task. During the measurement, the only interaction between the participants happened through on-screen movement of a racing car, controlled by button presses of both participants working with distinct roles, either controlling the speed or the direction of the car. Pairs working together in the task were found to have elevated neural coupling in the alpha, beta, and gamma frequency bands, compared to performance matched false pairs. Higher gamma synchrony was associated with better momentary performance within dyads and higher alpha synchrony was associated with better mean performance across dyads. These results are in line with previous findings of increased inter-brain synchrony during interaction, and show that phase synchronization of oscillatory activity occurs during online real-time joint coordination without any physical co-presence or video and audio connection. Synchrony decreased during a playing session, but was found to be higher during the second session compared to the first. The novel paradigm, developed for the measurement of real-time collaborative performance, demonstrates that changes in inter-brain EEG phase synchrony can be observed continuously during interaction.

INTÉRÊT POUR NOTRE THÉMATIQUE

Comment une simple collaboration sur un jeu vidéo en ligne, même sans se voir ni se parler, parvient à synchroniser les ondes cérébrales de deux joueurs et à booster leur efficacité.

> (Hors thématique mais intéressant)

ARTICLE 6 / 13

Does co-presence affect the way we perceive and respond to emotional interactions?

Bachmann J, Zabicki A, Gradl S, Kurz J, Munzert J, Troje NF, Krueger B

Bachmann J, Zabicki A, Gradl S, Kurz J, Munzert J, Troje NF, Krueger B (2021). Does co-presence affect the way we perceive and respond to emotional interactions?. Exp Brain Res, 239(3), 923-936. https://doi.org/10.1007/s00221-020-06020-5

RÉSUMÉ

This study compared how two virtual display conditions of human body expressions influenced explicit and implicit dimensions of emotion perception and response behavior in women and men. Two avatars displayed emotional interactions (angry, sad, affectionate, happy) in a "pictorial" condition depicting the emotional interactive partners on a screen within a virtual environment and a "visual" condition allowing participants to share space with the avatars, thereby enhancing co-presence and agency. Subsequently to stimulus presentation, explicit valence perception and response tendency (i.e. the explicit tendency to avoid or approach the situation) were assessed on rating scales. Implicit responses, i.e. postural and autonomic responses towards the observed interactions were measured by means of postural displacement and changes in skin conductance. Results showed that self-reported presence differed between pictorial and visual conditions, however, it was not correlated with skin conductance responses. Valence perception was only marginally influenced by the virtual condition and not at all by explicit response behavior. There were gender-mediated effects on postural response tendencies as well as gender differences in explicit response behavior but not in valence perception. Exploratory analyses revealed a link between valence perception and preferred behavioral response in women but not in men. We conclude that the display condition seems to influence automatic motivational tendencies but not higher level cognitive evaluations. Moreover, intragroup differences in explicit and implicit response behavior highlight the importance of individual factors beyond gender.

INTÉRÊT POUR NOTRE THÉMATIQUE

Comment la "forme" numérique d'un tiers (un avatar sur écran versus un avatar en relief à côté de nous) modifie notre façon de ressentir ses émotions et influence notre décision physique de nous approcher ou de fuir cette interaction.
Hors propos pour notre expérience mais intéressant de voir que la manière de présenter la présence d'un "autre" peut modifier (ou non) les comportements et réponses physiologiques.

> même si notre cerveau sait pertinemment que ces personnages sont virtuels, ils parviennent tout de même à tromper nos mécanismes psychologiques et physiques. Ils induisent des réactions automatiques (comme l'évitement)

ARTICLE 7 / 13

An experiment on fear of public speaking in virtual reality.

Pertaub DP, Slater M, Barker C

Pertaub DP, Slater M, Barker C (2001). An experiment on fear of public speaking in virtual reality.. Stud Health Technol Inform, 81, 372-8.

RÉSUMÉ

Can virtual reality exposure therapy be used to treat people with social phobia? To answer this question it is vital to known if people will respond to virtual humans (avatars) in a virtual social setting in the same way they would to real humans. If someone is extremely anxious with real people, will they also be anxious when faced with simulated people, despite knowing that the avatars are computer generated? In [17] we described a small pilot study that placed 10 people before a virtual audience. The purpose was to assess the extent to which social anxiety, specifically fear of public speaking, was induced by the virtual audience and the extent of influence of degree of immersion (head mounted display or desktop monitor. The current paper describes a follow up study conducted with 40 subjects and the results clearly show that not only is social anxiety induced by the audience, but the degree of anxiety experienced is directly related to the type of virtual audience feedback the speaker receives. In particular, a hostile negative audience scenario was found to generate strong affect in speakers, regardless of whether or not they normally suffered from fear of public speaking.

INTÉRÊT POUR NOTRE THÉMATIQUE

Article non trouvé.... Mais peut-être intéressant de voir si les participants réagiront aux "humains" virtuels (avatars) dans un environnement social virtuel de la même manière qu’ils le feraient avec de vrais humains.

Psychosocial stress evoked by a virtual audience: relation to neuroendocrine activity.

Kelly O, Matheson K, Martinez A, Merali Z, Anisman H

Kelly O, Matheson K, Martinez A, Merali Z, Anisman H (2007). Psychosocial stress evoked by a virtual audience: relation to neuroendocrine activity.. Cyberpsychol Behav, 10(5), 655-62. https://doi.org/10.1089/cpb.2007.9973

RÉSUMÉ

A modified version of the Trier Social Stress Test (TSST) was employed to determine whether exposure to a virtual audience using virtual reality (VR) technology would prompt an increase of neuroendocrine activity comparable to that prompted by a real audience. Following an anticipatory period, participants completed a speech or a speech-plus-math challenge in front of either a virtual audience, a panel of judges they were led to believe was behind a one-way mirror, or an audience comprised of confederates. An additional group that had prepared a speech was simply directed to observe the virtual audience but did not deliver the speech. Finally, a control group completed questionnaires for the duration of the experiment. Cortisol samples were obtained upon arrival to the laboratory, just before the challenge, and 15 and 30 minutes after the task. Participants also completed a measure assessing stressor appraisals of the task before and after the challenge. Anticipation of the task was associated with a modest increase of cortisol levels, and a further rise of cortisol was evident in response to the challenge. The neuroendocrine changes evoked by the virtual audience were comparable to those elicited by the imagined audience (behind the one-way mirror) but less than changes evoked by the panel of confederates. Stressor appraisals were higher post-challenge compared to those reported prior to the task; however, appraisals were similar across each group. These data suggest that VR technology may be amenable to evaluating the impact of psychosocial stressors such as the TSST.

INTÉRÊT POUR NOTRE THÉMATIQUE

Un "autre" purement virtuel (ici, un public d'avatars) a le pouvoir de déclencher une décharge de cortisol et une angoisse psychologique réelles, identiques à celles provoquées par un vrai public humain.

Becoming the center of attention in social anxiety disorder: startle reactivity to a virtual audience during speech anticipation.

Cornwell BR, Heller R, Biggs A, Pine DS, Grillon C

Cornwell BR, Heller R, Biggs A, Pine DS, Grillon C (2011). Becoming the center of attention in social anxiety disorder: startle reactivity to a virtual audience during speech anticipation.. J Clin Psychiatry, 72(7), 942-8. https://doi.org/10.4088/JCP.09m05731blu

RÉSUMÉ

OBJECTIVE: A detailed understanding of how individuals diagnosed with social anxiety disorder (SAD) respond physiologically under social-evaluative threat is lacking. Our aim was to isolate the specific components of public speaking that trigger fear in vulnerable individuals and best discriminate between SAD and healthy individuals.METHOD: Sixteen individuals diagnosed with SAD (DSM-IV-TR criteria) and 16 healthy individuals were enrolled in the study from December 2005 to March 2008. Subjects were asked to prepare and deliver a short speech in a virtual reality (VR) environment. The VR environment simulated standing center stage before a live audience and allowed us to gradually introduce social cues during speech anticipation. Startle eye-blink responses were elicited periodically by white noise bursts presented during anticipation, speech delivery, and recovery in VR, as well as outside VR during an initial habituation phase, and startle reactivity was measured by electromyography. Subjects rated their distress at 4 timepoints in VR using a 0-10 scale, with anchors being "not distressed" to "highly distressed." State anxiety was measured before and after VR with the Spielberger State-Trait Anxiety Inventory.RESULTS: Individuals with SAD reported greater distress and state anxiety than healthy individuals across the entire procedure (P values < .005). Analyses of startle reactivity revealed a robust group difference during speech anticipation in VR, specifically as audience members directed their eye gaze and turned their attention toward participants (P < .05, Bonferroni-corrected).CONCLUSIONS: The VR environment is sufficiently realistic to provoke fear and anxiety in individuals highly vulnerable to socially threatening situations. Individuals with SAD showed potentiated startle, indicative of a strong phasic fear response, specifically when they perceived themselves as occupying the focus of others' attention as speech time approached. Potentiated startle under social-evaluative threat indexes SAD-related fear of negative evaluation.

INTÉRÊT POUR NOTRE THÉMATIQUE

Des "autres" purement virtuels et immobiles ont le pouvoir de déclencher une réaction de peur réflexe et inconsciente (sursaut) chez le participant. Le simple fait de se sentir regardé par un

> groupe d'avatars reproduit les mécanismes cliniques d'une phobie sociale "dans la vraie vie".

Leveraging copresence to increase the effectiveness of gamified personalized normative feedback.

LaBrie JW, de Rutte JL, Boyle SC, Tan CN, Earle AM

LaBrie JW, de Rutte JL, Boyle SC, Tan CN, Earle AM (2019). Leveraging copresence to increase the effectiveness of gamified personalized normative feedback.. Addict Behav, 99, 106085. https://doi.org/10.1016/j.addbeh.2019.106085

RÉSUMÉ

Virtual copresence, or the sense of being with others in an online space, is a feeling induced on many apps and websites through user avatars and browsable profile pages. Despite the small/modest effect sizes observed in popular web-based personalized normative feedback (PNF) alcohol interventions for college students, previous research has yet to consider how copresence might boost efficacy. This study builds on previous PNF gamification work to investigate whether specific copresence features (visual and text-based information about peers) increase PNF's ability to reduce alcohol use relative to a standard PNF condition and a gamified PNF condition. Copresence and perceptions of drinking norms (average drinks, peak drinks, and binge episodes) were assessed during a 3-week period following random assignment of college students (N = 235) to 1 of the 4 web-based PNF conditions (Standard PNF, Gamified PNF Only, Gamified PNF + Visual Copresence, and Gamified PNF + Maximum Copresence). These conditions asked the same questions about drinking and delivered identical PNF on alcohol use, but differed in the level of visual and text-based information about peers. Overall, only the gamified condition that featured maximum copresence significantly reduced drinking outcomes relative to standard PNF. However, conditional effects were moderated by pre-intervention drinking. Among heavier pre-intervention drinkers, both gamified conditions that featured copresence significantly improved upon Standard PNF in reducing alcohol use at follow-up. Findings suggest that including social media-like copresence features to visually represent and provide basic information about the peers contributing to the norms can enhance the efficacy of gamified PNF interventions, especially among high-risk heavy drinkers.

INTÉRÊT POUR NOTRE THÉMATIQUE

Très intéressant dans la mise en place de la simulation d'un co-présence en ligne !

Condition "Zéro co-présence" (Groupe contrôle): Aucun élément numérique (ni texte, ni image) ne suggère que d'autres personnes utilisent l'application ou participent à l'expérience.

Condition "Co-présence Faible" (Éléments textuels uniquement) :
Indices textuels automatisés pour faire croire que d'autres étudiants jouent en direct, avec des messages de type : "Un étudiant de l'Université X vient de rejoindre la partie" ou "Un utilisateur a répondu correctement". Il y a également un feed simulant l'activité récente d'autres participants, mais sans aucune incarnation humaine ou visuelle. (synchronisation asynchrone simulée)

Condition "Co-présence Forte" (Éléments textuels + visuels) :
En plus du texte de la condition faible, intégration d'éléments graphiques d'identification sociale avec des vignettes numériques comprenant la photo de profil (ou l'avatar) des autres pairs, leur prénom, leur âge, leur genre et leur université. L'étudiant peut cliquer sur ces profils numériques pour voir un résumé rapide de l'identité des "autres" joueurs, > reproduction du design et des codes d'un réseau social.

Mesure aussi le comportement, 1 mois après ! ils recontactent les 340 étudiants par e-mail pour leur faire remplir un nouveau questionnaire de suivi en ligne sur le binge drinking et la quantité d'alcool. Donc réelle étude de l'impact d'une présence numérique sur le comportement/attitude envers l'alcool.

Feasibility of autism-focused public speech training using a simple virtual audience for autism spectrum disorder.

Kumazaki H, Muramatsu T, Kobayashi K, Watanabe T, Terada K, Higashida H, Yuhi T, Mimura M, Kikuchi M

Kumazaki H, Muramatsu T, Kobayashi K, Watanabe T, Terada K, Higashida H, Yuhi T, Mimura M, Kikuchi M (2020). Feasibility of autism-focused public speech training using a simple virtual audience for autism spectrum disorder.. Psychiatry Clin Neurosci, 74(2), 124-131. https://doi.org/10.1111/pcn.12949

RÉSUMÉ

AIM: Public speaking seems to be one of the most anxiety-provoking situations for individuals with autism spectrum disorder (ASD). However, there are few evidence-based interventions. We developed Autism-Focused Public Speech Training using Simple Virtual Audiences (APSV), which differs from a general virtual audience in terms of its simple facial expressions and emphasis on the importance of the eyes. The present study aimed to evaluate the feasibility of APSV as an educational method for individuals with ASD.METHODS: Fifteen male individuals with ASD were randomly assigned to two groups: one group received APSV (n = 8), and the other group (n = 7) received independent study (IS). From Days 2 to 6, participants in the APSV and IS groups were encouraged to read and answer questions often asked in actual public speaking events. Participants in the APSV study group performed this activity in front of the APSV system, while those in the IS group performed in an empty room. Before and after the intervention (Days 1 and 7), the participants in the two groups had a mock public speaking experience in front of 10 people for approximately 10 min.RESULTS: After the training sessions, the participants' self-confidence had improved and salivary cortisol levels were significantly decreased in the APSV group as compared to those in the IS group. APSV improved self-confidence and decreased public speaking stress in individuals with ASD.CONCLUSION: APSV appears to be useful in improving self-confidence and decreasing public speaking stress in individuals with ASD.

INTÉRÊT POUR NOTRE THÉMATIQUE

Parfois il vaut mieux simplifier l'apparence de la co-présence virtuelle pour optimiser le résultat d'une interaction numérique (ici, réduire la phobie sociale).

Cette interaction simulée et épurée permet de s'entraîner en douceur pour ensuite mieux interagir avec de "vrais autres" dans le monde réel.

The effects of social presence on cooperative trust with algorithms.

Liefooghe B, Min E, Aarts H

Liefooghe B, Min E, Aarts H (2023). The effects of social presence on cooperative trust with algorithms.. Sci Rep, 13(1), 17463. https://doi.org/10.1038/s41598-023-44354-6

RÉSUMÉ

Algorithms support many processes in modern society. Research using trust games frequently reports that people are less inclined to cooperate when believed to play against an algorithm. Trust is, however, malleable by contextual factors and social presence can increase the willingness to collaborate. We investigated whether situating cooperation with an algorithm in the presence of another person increases cooperative trust. Three groups of participants played a trust game against a pre-programmed algorithm in an online webhosted experiment. The first group was told they played against another person who was present online. The second group was told they played against an algorithm. The third group was told they played against an algorithm while another person was present online. More cooperative responses were observed in the first group compared to the second group. A difference in cooperation that replicates previous findings. In addition, cooperative trust dropped more over the course of the trust game when participants interacted with an algorithm in the absence another person compared to the other two groups. This latter finding suggests that social presence can mitigate distrust in interacting with an algorithm. We discuss the cognitive mechanisms that can mediate this effect.

INTÉRÊT POUR NOTRE THÉMATIQUE

Le résultat d'une interaction numérique avec un "autre" non-humain (un algorithme) peut être radicalement transformé par la simple co-présence invisible d'un "autre" humain en ligne. (une présence simulée !)

Le simple fait de penser qu'il y a une co-présence humaine permet de faire plus confiance en un algorithme.

Techniques utilisées pour simuler la co-présence :
Avant l'expérience apparition d'une barre de progression avec un message indiquant : "Attente de la connexion de l'observateur...". Après quelques secondes, un signal visuel vert s'allume pour valider que le "tiers" est bien connecté.

> Puis en direct, présence d'un pseudonyme fictif attribué à l'observateur (ex: "User_482") ou une mention "Statut : En ligne".
> Apparition de "notifications" indiquant : "L'observateur analyse le tour actuel..." ou "Session surveillée".

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Feeling more together: group attention intensifies emotion.

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RÉSUMÉ

The idea that group contexts can intensify emotions is centuries old. Yet, evidence that speaks to how, or if, emotions become more intense in groups remains elusive. Here we examine the novel possibility that group attention--the experience of simultaneous coattention with one's group members--increases emotional intensity relative to attending alone, coattending with strangers, or attending nonsimultaneously with one's group members. In Study 1, scary advertisements felt scarier under group attention. In Study 2, group attention intensified feelings of sadness to negative images, and feelings of happiness to positive images. In Study 3, group attention during a video depicting homelessness led to greater sadness that prompted larger donations to charities benefiting the homeless. In Studies 4 and 5, group attention increased the amount of cognitive resources allocated toward sad and amusing videos (as indexed by the percentage of thoughts referencing video content), leading to more sadness and happiness, respectively. In all, these effects could not be explained by differences in physiological arousal, emotional contagion, or vicarious emotional experience. Greater fear, gloom, and glee can thus result from group attention to scary, sad, and happy events, respectively.

INTÉRÊT POUR NOTRE THÉMATIQUE

Définition de l'attention de groupe: quand on regarde ou écoute quelque chose en même temps que des gens de notre groupe/pairs, notre réaction émotionnelle est beaucoup plus forte. Cela fonctionne même si on ne voit pas les autres et qu'on ne leur parle pas: le simple fait de savoir qu'ils partagent ce moment en simultané suffit à augmenter nos émotions.

Plusieurs expériences dans l'article, des expériences en ligne (100% virtuelles) et des expériences en laboratoire (physiques).

Pour les expériences en ligne (Études 1, 3, 4 et 5), détail des protocoles numériques pour simuler la présence (La présence est 100 % simulée)

Les participants regardent des images ou des vidéos sur écran. On leur fait croire que d'autres

personnes connectées regardent le même écran. On s'assure qu'ils ne peuvent pas communiquer pour ne pas s'influencer.

La création de l'identité de groupe : on demande au participant de choisir un avatar (par exemple, un carré bleu) ou on lui attribue une identité étudiante. On lui dit que le système va le connecter avec d'autres participants qui ont les mêmes caractéristiques.

Le faux chargement: L'écran affiche des messages du type : "Connexion au serveur en cours...", "En attente des autres participants...", ou "Le participant 2 est en train de se connecter". Ces écrans d'attente durent plusieurs secondes pour créer l'illusion d'une synchronisation humaine réelle.

Le faux direct (Le chat simulé) : Dans certaines études, un faux salon de discussion ou un panneau latéral affiche les avatars des "autres" participants avec un point vert indiquant qu'ils sont "En ligne" et actifs au même instant.

L'illusion du déclenchement simultané : Une fois que le faux chargement est terminé, un message indique : "Tous les participants sont connectés. Le média va démarrer simultanément pour tout le monde dans 3, 2, 1..." Le participant est alors persuadé que d'autres personnes s'asseyent derrière leur écran en même temps que lui pour regarder la même chose.

Ce qui est intéressant c'est que c'est réellement l'effet de "groupe" ou de "pairs" qui compte car dans une condition on utilise le même protocole numérique mais on présente les autres avec des avatars différents et l'effet disparaît, prouvant que cela ne marche qu'avec son groupe.

Dans une condition en différé, le faux chargement dit : "Le participant précédent a fini, c'est à votre tour" et l'effet disparaît aussi, prouvant qu'il faut que ce soit simultané.