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Lonely Citizen Effect: How is Democracy Influenced by the Growing Problem of Loneliness?

Abstract

The problem of loneliness is spreading across modern societies faster than ever before. The main aim of this paper is to demonstrate that this change has negative effects not only on the wellbeing of individuals, but also on the political stability of democratic societies. Loneliness-induced impairments of social cognition make citizens maintain a hostile perception of others and prevent them from looking for truth and participating in reciprocal relationships. Inability to regulate emotions makes them, in turn, prefer affective narratives instead of facts, as well as succumb to manipulations or join unpredictable, deindividuating, totalitarian-like movements. The combination of aforementioned effects may pose a great threat to democratic systems. A suggested way to improve this situation is to fill in the gaps of human emotional instincts and ineffectiveness of welfare institutions, which endorse psychological and physical social isolation. It can be done by using various sorts of innovative applications of modern technologies.

Keywords: loneliness, politics, democracy, social cognition, emotions, citizenship

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Introduction

COVID-19 pandemics gave every one of us the dubious pleasure of experiencing how social isolation feels like. However, can you imagine living in such a condition for a longer time or even for a lifetime? When the pandemic will finally end and we will be able to hug our relatives and shake hands with our friends, there will still be some people who will remain in their own psychological state of isolation. Many of them have already been experiencing it long before the lockdown. To better understand this situation, let us outline the difference between *objective* social isolation, which can be experienced while practicing social-distancing and staying at home, and *perceived* social isolation, commonly recognized as *loneliness*.¹ John Cacioppo, one of the most prominent scientists in the field of social neuroscience, described loneliness as a state of subjective discrepancy between one's preferred and actual social relations, leading to a negative experience of feeling socially isolated, even when among family or friends.² Loneliness is certainly not a novelty to the human race as social exclusion was one of the greatest life-threatening dangers for entities throughout thousands of years. Nonetheless, since the second half of the 20th century it has become a much more common problem. Even before the COVID-19 pandemic, 61% of Americans already felt lonely.³ What is surprising, the highest scores were obtained

¹ Cacioppo, Hawkley (2009).

² Cacioppo et al. (2015); The difference between loneliness and solitude is also worth mentioning as the first one represents a negative feeling which is not one's voluntary decision, whereas the latter relates to a conscious choice of avoiding social interaction for some period of time and must not have negative connotations.

³ Cigna (2020).

not among the elderly, but among respondents from Generation Z (79%) and the Millennials (71%).⁴ The situation in Europe seems to be relatively better as only 7% of respondents admitted feeling lonely, with the number being 10% for Polish respondents.⁵ On the other hand, objective social isolation was reported by 18% of the Europeans and 35% of the Poles.⁶

Researchers in this field point out various factors, which could be the reasons for such a situation. They stress the growing role of social media and radical individualism as well as the overall influence of neo-capitalistic structures, resulting in large-scale migrations to cities, a rising number of single-person households, automation of many jobs and the failure of welfare services in helping the citizens in need.⁷ The consequences of loneliness turn out to be not only of a psychological nature, but also affect the physical health of individuals. The correlation between the social isolation level and the risk of cardiovascular disease, Alzheimer's disease or premature death have been reported across many papers.⁸ Lonely individuals also suffer greater mental health problems, higher levels of stress and impaired cognitive functioning.⁹

John Cacioppo and William Patrick have distinguished three main factors, which are crucial for understanding

⁴ Ibidem; *Generation Z* – a generation of people born after the second half of 1990s.; *Millennials* – a generation of people born between 1980 and the first half of 1990s.

⁵ European Commission (2019).

⁶ Ibidem.

⁷ Hertz (2020); Hunt et al. (2018); Sagan (2017).

⁸ Ong et al. (2016); Holt-Lunstad, Smith (2016); Hawkey, Cacioppo (2010).

⁹ Okruszek et al. (2020); Wang et al. (2018); Boss et al. (2015); Cacioppo et al. (2014).

the causes and consequences of the state of loneliness: (1) level of vulnerability to social alienation (being a mixed result of the genetic and environmental factors), (2) emotional self-regulation skills (the ability to self-regulate the emotions associated with being isolated) and (3) social cognition (mental representations, expectations of others and reasoning about them).¹⁰ Meanwhile, all of the aforementioned factors exert influence on the perceived level of loneliness, only the latter two are also shaped by this state. That is, the more lonely individuals feel, the greater impairments in the area of social cognition and emotional self-regulation they suffer:¹¹

“When humans feel socially isolated, their brains, too, switch automatically into a self-preservation mode of information processing. As a result, when a person feels lonely, they tend to become more defensive and focused on their own welfare and self-preservation. [...] a lonely person may become more hostile and defensive when talking with people, [...] their brains show less activation in the area involved in understanding and sharing others’ emotions (empathy) and in understanding others’ viewpoint from their perspective (perspective taking).”¹²

The aforementioned effects can therefore make one not only unable to maintain satisfactory social interactions on a micro-scale, that is between single individuals, but also impair the overall quality of their civic participation in the society, making it an issue of a macro-scale. Just like the fundamental

¹⁰ Cacioppo, Patrick (2009): 14–15.

¹¹ Nowland et al. (2018); Cacioppo, Hawkley (2009).

¹² Cacioppo, Cacioppo (2013): 2.

concept of the social pact introduced by Jean-Jacques Rousseau required citizens to submit their particular wills to the collective will, in modern democracies citizenship requires its participants to sacrifice a certain part of their intrinsic freedom and self-preserving behaviour in order to make both harmonious and pluralistic society possible.¹³

In this paper I aim to present how impairments in the area of social cognition and emotional self-regulation, caused by loneliness, can negatively affect political attitudes and behaviour of citizens in modern societies. In order to make the analysis clear I shall divide the aforementioned implications into two subcategories with respect to the cognitive impairment they originate from: impairment of emotional self-regulation or impairment of social cognition.

Citizen with Biased Social Cognition

Loneliness-related impairments in the area of social cognition consist mostly in hyper-vigilance to social threats, which means that lonely people “are more likely to remember negative social events, hold negative social expectations and pay more attention to information that is socially threatening than non-lonely individuals.”¹⁴ This, on the other hand, enhances the influence of self-preserving attitudes and various cognitive biases. An example may be the selective and the attentional bias, which makes one focused on negative stimuli, or the pseudodiagnosticity bias, which is in turn a type of the confirmation bias.¹⁵

¹³ Rousseau (2004).

¹⁴ Bangee et al. (2014): 16.

¹⁵ Cacioppo et al. (2016); Han (2020).

Cognitive biases are defined as “systematic (that is, non-random and, thus, predictable) deviations from rationality in judgment or decision-making.”¹⁶ Depending on the specific type of bias they can influence one’s cognition in many different ways and circumstances, but they all bring about the same result – impaired rational thinking and reduced awareness of the actual characteristics of the situation. The citizens’ lack of objective understanding and predictability of the consequences of biases for human cognition can be easily taken advantage of by powerful and hence very dangerous tools of *dark sociotechnics*.¹⁷ Let us consider the concept of Orwellian *doublethink* and the way it was used to rewrite history, just like it was stated in the Party slogan: “Who controls the past, controls the future: who controls the present, controls the past.”¹⁸ Such manipulations are not just a creation of literary fiction. The events of the 20th century brought about multiple cases of historical negationism attempts, which were aimed at obtaining certain ideological or political goals, the examples of which are the denials of the Holocaust, Armenian Genocide, or numerous Soviet crimes.¹⁹ The society of unaware, predictable and manipulation-prone citizens would not be able to trace such discourse crimes and fight against their spreading.²⁰ Moreover, the effects of confirmatory bias could even make them

¹⁶ Blanco (2017): 1.

¹⁷ *Dark sociotechnics* is a term introduced by Adam Podgórecki and it refers to a situation in which sociotechnics is consciously used to produce harm. Podgórecki (1996): 27.

¹⁸ Orwell (2008): 37.

¹⁹ Radwan (2019).

²⁰ In this paper the word *discourse* is understood as “the use of language in speech and writing in order to produce meaning” (Oxford Advanced Learner’s Dictionary).

enforce such lies. If the first version of events they encounter was a manipulated one, then they would be avoiding evaluation of such “knowledge” by rejecting any opposing evidence and therefore maintaining the politically constructed historical narratives. This mechanism also applies to susceptibility towards pseudoscience and conspiracy theories. Once having succumbed to such beliefs, one tend to look only for the evidence reinforcing them, while rejecting evidence which could prove otherwise.²¹ A biased perception of the world can make citizens not only conformist and easy to manipulate, but even dangerous taking as an example anti-vaxxers or COVID-conspiracists, who can significantly impact health and life of other citizens by refusing to wear facemasks, spreading fake news about virus non-existence, or even by illegally entering isolation wards in hospitals.²²

Besides the issue of misinformation and being prone to discourse manipulations, lonely citizens have another very dangerous trait. As they are much more sensitive to social threats, they are also significantly more biased in terms of *me vs. others*, but also *us vs. them* divisions. Loneliness-induced self-preserving attitude, being the consequence of the first differentiation, could actually be described as an outcome of the influence that cognitive biases have on perception of reality. Many kinds of heuristics, such as naïve cynicism, actor-observer bias or self-preserving bias, make one more critical when assessing others and at the same time protective of one’s values and image superiority. However, the group-level issue seems to be much more threatening to political stability. By enhancing the stereotypes, attributing

²¹ Gilovich (1991).

²² Goodman, Carmichael (2020); Giles et al. (2021); Bieńczyk, Zasa-da (2021).

hostile intentions to opposing groups and assuming superiority of one's own group, strong intragroup bias leads straight to political and ideological polarization. Consequently, this can have dramatic effects on both national and global political stability. Lonely citizens view *others* as a potential threat, which means that working out any kind of trust and social capital would be quite challenging in a loneliness-dominated society. Marcin Król, one of the most remarkable Polish political philosophers, wrote:

“Brotherhood, understood as friendship, is a condition for the democratic community to exist. But what we ought to do, if we differ so much, that we simply cannot get along? Well, friendship, and thus the community, should be of a minimalistic character.”²³

The suggested direction of trying to work out at least a minimalistic-level friendship between citizens seems to be a promising solution for diversified, pluralistic societies. Lately, however, antagonistic and vicious feelings have reached such a point where even this idea seems impossible. That is the reason why *the politics of threat* can be considered yet another effective sociotechnical tool to be used on lonely, threat-sensitive citizens. Such population is much easier to manipulate into anti-minorities narratives and discriminatory behaviour or attitudes. It is based on framing the discourse about certain minority groups in such a way that it presents them as a threat to the majority's safety, wellbeing or cultural values and therefore triggers negative reactions

²³ Król (2017): 172; All of the cited Polish texts were translated by the author of the paper, unless stated otherwise.

towards these groups.²⁴ In most cases, the actual level of danger is additionally overrated due to the threat-spreading discourse used by the media.²⁵

Even in more homogeneous societies, where intergroup polarization is not necessarily an issue, a different disadvantageous kind of loneliness-induced trait may emerge. An aggregated effect of social hostility and self-protecting attitudes would result in the egoistic understanding of the concept of community, therefore preventing active citizenship.²⁶ A lonely citizen would rather ask what the community can do for them than what they can do for the community.²⁷ They would focus mainly on fulfilling their own needs, while avoiding the responsibility of providing for the community as well. A society of such entities will obviously face the *free-rider* problem, which is well-known across democracies. To grasp a better understanding of why reciprocity, crucial for the development of *tit for tat* relations, does not exactly work in modern individualistic societies, an anthropological perspective should be briefly introduced. In the classic work of Marcel Mauss, “The Gift”, various forms of maintaining reciprocity are discussed.²⁸ Maori people believed, for example, in *hau*, a spiritual power of things, which forces the individuals to accept gifts and pass them on, therefore upholding the circulation of wealth.²⁹ On the other hand, the rituals like *Potlatch*, or its Melanesian version called *Kula exchange*, besides relying on the sacral, spiritual part of the tradition,

²⁴ Hertz (2020).

²⁵ Gadarian (2010).

²⁶ Malon (2020).

²⁷ The original version of this statement was used in John F. Kennedy’s Inaugural Address in 1961.

²⁸ Mauss (1954).

²⁹ *Ibidem*: 9.

were aimed also at demonstrating one's own superiority and social status.³⁰ Now, considering modern religious and moral relativism, as well as the replacing the capital embedded in social relations (and hence one's social reputation) with placing it in material goods, it becomes more understandable why reciprocity is much more difficult to maintain nowadays. For a lonely citizen, the perceived social threat is so unsettling that it will not allow them to believe in any sort of sacral or spiritual assurance, or rely on other citizens. Therefore, in a lonely society there can be no real community - there are only *particular will*-driven individuals playing simultaneously within the rules of law.

Citizens with Impaired Emotional Self-Regulation

Emotion regulation refers to one's ability to overcome one's automatic emotional response by deliberately controlling their interpretation of the stimulus and reaction to it.³¹ The evidence from both neuroscientific and psychological studies indicate that lonely subjects are less efficient in emotional self-regulation than the socially connected ones.³² The effects of these impairments on civic behaviours and attitudes can be divided into two groups of results: the first group as a *direct* outcome of the inability to manage one's own emotions and the second group as an *indirect* result of the way lonely individuals are trying to deal with their unfulfilled social needs.

Beginning with the first one, it should be noted that emotions, while being extremely important from the functional and evolutionary perspective, in many cases display their

³⁰ Ibidem: 72.

³¹ Ward (2017): 134.

³² Kong et al. (2014); Vanhalst et al. (2018).

maladaptive influence as well. Having in mind the findings of Antonio Damasio, who showed that patients with lesioned ventromedial prefrontal cortex not only became emotionless, but also were unable to make any reasonable decisions, we know that emotions are necessary even for the seemingly most logical processes.³³ The topic of emotions seems to be especially important in the discussion of democratic societies, because on average their citizens are not specialists in political science. Therefore, their political behaviours or attitudes are based mainly on gut feelings, moral intuitions and emotional evaluations, while the logical political, economic or philosophical reasoning plays a minor part here.

Jonathan Haidt, an American social and moral psychologist, describes extensively in his book, “The Righteous Mind”, how the interaction between rationality and emotions shapes the way we perceive and act upon the political reality.³⁴ He metaphorically depicts our gut feelings as an elephant, steering the general direction of the attitude, whose will can be only more or less corrected by the rider on its back, depending on his proficiency in persuading the elephant.³⁵ Now, if the riders in lonely citizens are not skilled enough to keep their elephants under any kind of control, they leave them out for others to be taken advantage of. Haidt also adds that conservatives are especially good at elephant-charming, because they know how to address all of the five moral intuitions in their political statements and simply understand their importance better than liberals.³⁶ In case of the procedural

³³ Damasio (2006); Ventromedial prefrontal cortex (vmPFC) is a cortical region responsible for emotional responses.

³⁴ Haidt (2013).

³⁵ *Ibidem*: 52–54.

³⁶ *Ibidem*: 180–182.

democracy, the opportunity to manipulate citizens' moral emotions is typically vastly misused during election campaigns. Król calls attention to the example of political program quality:

“During the last decades a serious degradation of their substantive content occurred. As we know that *quantity* does not read, politicians abridge their programs to one word, a sentence, at most – a paragraph. There are dozens of examples and the restrictions which Twitter communication sets only add up to this brevity.”³⁷

The replacement of a discussion with some catchy slogans restricts such an important decision as the election vote almost entirely to manipulation-prone moral and emotional content. Therefore, in a society of overemotional voters democracy may no longer be able to serve all of its citizens by working out compromise solutions, but instead may become the tyranny of a majority, or – what is even more threatening – a majority of *believers*. Examples from history indicate that when Milan Kundera suggested in his novel that claiming “My conscience is clear! I didn’t know! I was a believer!” lies at the very root of human irreparable guilt, he was probably right.³⁸ After all, too many monstrous ideologies became powerful just because of their virtuosity in making masses believe and feel.

³⁷ Król (2018): 106; Król refers to *quantity* as an area of the most important, deepest changes in the past 200 years, subject to ever growing numbers of such things as: “people, goods, inter-institutional relations, voters, forum users, terminally sick people.” (Król (2018): 45).

³⁸ Kundera (1987): 211.

The ability to manage citizens emotions in order to attain some particular goals is a widely used move in the so-called post-truth era.³⁹ According to Oxford Dictionary, post-truth “relates to or denotes circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.”⁴⁰ The political discourse is therefore contaminated by post-truth as well. Objective arguments are being overridden by their affective caricatures, because, as Król explains, “Citizens are not interested in facts anymore, they don’t know them. For they are drowned in a narrative, thus, in a fairy-tale about the facts.”⁴¹ The concept of *narratives* introduced by Jerome Bruner is indeed based on the replacement of facts with the “life-likeness” of the story. However, as Haidt and Craig explained, the narrative mode is still the most accessible form of thought for humans and plays the biggest part in moral information processing, because it provides a coherent, available way to make sense of the uncountable amount of modern world’s stimuli.⁴² Although reducing the cognitive load offered by narratives may seem appealing, the global effects of entire societies being made their loyal believers may have significant consequences. Depending on the circumstances, it could result either in the populist tyranny of the majority provided that the narratives in society would be quite homogenous, or in the radical political polarization in case many contradictable narratives occur.

³⁹ Keyes (2004); Salgado (2018); Mair (2017).

⁴⁰ Oxford Advanced Learner’s Dictionary.

⁴¹ Król (2017): 182; Another comment on that matter can be found in: Król (2018): 80–81.

⁴² Haidt, Joseph (2008): 388–390.

Returning to the *indirect* set of effects resulting from emotional regulation impairments induced by loneliness, let us examine the mechanism of the self-perpetuating loneliness loop. If the objective state of social isolation, which can happen to anyone and actually does happen on a broad scale in the COVID-19 times, lasts too long, it can impact one's social and emotional functioning. As I have already mentioned, it makes affected individuals hostile and focused on themselves, as they feel that they can no longer rely on anybody else. Therefore, instead of trying to quit this state through reconnecting with other people and initiating the most basic reciprocal *tit for tat* relations, they just keep drowning in the state of loneliness and self-reliance, at the same time reducing their ability to engage in meaningful relations and break the loop.

However, it does not mean that lonely individuals passively cope with their social pain. Even though it is hard for them to establish and maintain healthy reciprocal relationships, most often they manage to find other, significantly simpler and more automatic ways to fulfil this need, at least on the superficial level. According to Haidt, there are many ways to turn oneself into such a group-related adaptation, making one feel "simply a part of the whole".⁴³ He calls it a *hive switch* and explains that it is a product of our *conditionally groupish nature*, which allows us to connect with other humans on an almost sacral level. It may be initialized by rhythmical movement, singing (which can be found both in military and tribal rituals) or specific kinds of drugs, like Aztec psilocybin. Oxytocin, the hormone of closeness hypothetically responsible for this state, is also the reason why

⁴³ Haidt (2013): 261.

people are bonding with each other while eating, drinking moderate amounts of alcohol or smoking together.⁴⁴

This specific kind of ultra-groupish emotions has both its bright side and a much darker one. Bonding effects, which are used for instance in the military or to promote national identity attachment, can be especially appealing for lonely citizens and make them deliberately look for occasions which allow them to turn on the hive switch. For example, the atmosphere of protests, where the common goal, expressive slogans and rhythmical chanting create a very special feeling of unity, may particularly attract people lacking social connections and encourage them to spontaneously join manifestations. It is hard to unambiguously decide whether it is a good sign for democracy or not. While public demonstrations and grassroots movements are a crucial element of showing citizens' will in a democratic civil society, there is also a great chance that such protests of emotionally unstable and socially deprived people will become an ecstatic, uncontrollable, massive wave of chaos as has been shown in Todd Philip's "Joker".⁴⁵

However, the greatest threat socially deprived people may pose seem to lie in the danger of joining and therefore strengthening totalitarian organizations. Such authors as Stefan Czarnowski or Aleksander Hertz, who observed the rise of the 20th century totalitarian regimes, stressed in their papers the role of *redundant* or *déclassé* people.⁴⁶ As the authors explained, their lack of any kind of purpose or community to belong to made them specifically susceptible to all things the totalitarian groups were offering them: social status,

⁴⁴ Cacioppo, Patrick (2009); Haidt (2013).

⁴⁵ Philips (2019); Redmond (2021).

⁴⁶ Hertz (1937); Czarnowski (1936).

purpose, plain moral matrix and, most importantly, brotherhood of all members.⁴⁷ Although the nomenclature used by Hertz and Czarnowski is not necessarily the most accurate one in our case, as being lonely does not have to mean also *déclassé* or redundant, the described mechanism itself could apply to socially deprived people as well. The observations made by Hannah Arendt in “The Origins of Totalitarianism” seem to be much better matched to the problem of loneliness.⁴⁸ She explained that loneliness, described as “the experience of not belonging to the world at all” and “the most radical and desperate experiences of man” makes one simply surrender to the ideological narrative in order to retrieve one’s self-respect and life-purpose.⁴⁹ That description sheds a light on why all radical ideologies are structured so as to keep the hive switch of their members constantly turned on. Eventually, if there is no self, no loneliness can be felt.

Conclusions

As I attempted to present, the state of loneliness affects not only the welfare of individual citizens, but also the welfare of entire democratic systems. Impairments of social cognition and emotional self-regulation have multiple adverse consequences, but the conclusions flowing from the presented analysis allow us to distinguish three main problems: the loss of truth, multidimensional polarization, and the threat of totalitarian influences. In the pursuit of the possible solutions to that matter, a quotation from Edward Wilson can give some cues:

⁴⁷ Ibidem.

⁴⁸ Arendt (1968).

⁴⁹ Ibidem: 128, 475.

“The real problem of humanity is the following: We have Palaeolithic emotions, medieval institutions and godlike technology. And it is terrifically dangerous, and it is now approaching a point of crisis overall.”⁵⁰

Now, what might be reasonable to do about it, is to make use of our *godlike technology* in such a way that it would serve as a kind of a prosthesis, instead of letting it dominate us. A kind of a prosthesis complementing both our old-fashioned institutions, whose inefficacy in fulfilling citizens’ basic needs may enhance the growth of totalitarian groups, and our even more rudimentary emotions, which make us polarized and manipulation-prone. For instance, the lack of sufficiently effective public institutions can be partly complemented by various kinds of self-help groups supporting the citizens in need. An example may be the Polish Facebook group called “A visible hand”, where people in home quarantine can ask strangers for help in shopping, walking their dogs or any other necessary errands. Certain neuroscientific techniques, like transcranial direct current stimulation (tDCS) are another example of technology which can help in turn to minimize the problem of implicit intergroup prejudices.⁵¹ When it comes to the issue of emotional regulation, there are even more proven ways we can simply practice as any other skill. It can be done by attending EEG or fMRI neurofeedback therapy or even by using simple apps helping to control one’s feelings and reframe their initial interpretation in the Cognitive-Behavioural Therapy paradigm.⁵² Such grassroots endeavours may not seem so powerful at first

⁵⁰ Wilson (2009).

⁵¹ Sellaro et al. (2015).

⁵² Johnston et al. (2010); Silk et al. (2020).

sight. Nonetheless, they can be thought of as a way of working out certain good practices and ideas, which can be later used for reconstructing the new versions of existing institutions and making them more human.

Shared intentionality, which made us evolutionarily social, cooperative and therefore more successful than other primates, has also allowed us to create social pacts and arrange social life so as to make our communities flourish. Once shared intentionality would be diminished by growing hostility, polarization and radical individualism, we will probably not be able to create any sensible pacts anymore. As I tried to present, there are still many ways to prevent such a scenario and protect the heritage of our ancestors, as numerous useful tools are already available or ready to explore. However, not much can be done by single individuals. In the end, loneliness can only be overcome by joint, honest actions and it seems like currently we all have the need to join in.

Bibliography

- Arendt H. (1968), *The Origins of Totalitarianism: Part Three*, Harcourt, Brace & World.
- Bangee M., Harris R. A., Bridges N., Rotenberg K. J., Qualter P. (2014), Loneliness and attention to social threat in young adults: Findings from an eye tracker study, "Personality and Individual Differences" 2014, v. 63: pp. 16–23.
- Bieńczyk E., Zasada K. (2021), Skandaliczne wtargnięcie do szpitala. Zatrzymano 32-latkę z Torunia, URL = <https://www.rmf24.pl/raporty/raport-koronawirus-z-chin/polska/news-skandaliczne-wtargniec-do-szpitala-zatrzymano-32-latka-z-t,nId,5143314> [accessed: 03 April 2021].
- Blanco F. (2017), Cognitive bias, in: *Encyclopaedia of animal cognition and behaviour*, ed. J. Vonk, T. K. Shackelford, Springer.
- Boss L., Kang D., Branson S. (2015), Loneliness and cognitive function in the older adult: A systematic review, "International Psychogeriatrics" 2015, v. 27, issue 4.
- Cacioppo J. T., Hawkley L. C. (2009), Perceived social isolation and cognition, "Trends in cognitive sciences", v. 13 issue 10: pp. 447–454, URL = <https://doi.org/10.1016/j.tics.2009.06.005> [accessed: 30 March 2021].
- Cacioppo J. T., Patrick W. (2009), *Loneliness: Human Nature and the Need for Social Connection*, W. W. Norton & Company.
- Cacioppo S., Cacioppo J. T. (2013), Do You Feel Lonely? You are Not Alone: Lessons from Social Neuroscience, "Frontiers in neuroscience for young minds" 2013, v. 1, issue 9.
- Cacioppo S., Capitano J. P., Cacioppo J. T. (2014) Toward a neurology of loneliness, "Psychological Bulletin" 2014, v. 140, issue 6.
- Cacioppo S., Grippo A. J., London S., Goossens L., Cacioppo J. T. (2015), Loneliness: clinical import and interventions, "Perspectives on psychological science: a journal of the Association for Psychological Science" 2015, v. 10, issue 2, URL = <https://doi.org/10.1177/1745691615570616> [accessed: 30 March 2021].

- Cacioppo S., Bangee M., Balogh S., Cardenas-Iniguez C., Qualter P., Cacioppo J. T. (2016), Loneliness and implicit attention to social threat: A high-performance electrical neuroimaging study, "Cognitive neuroscience" 2016, v. 7, issue 1–4.
- Cigna (2020), Loneliness and the Workplace: 2020 U.S. Report, URL = <https://www.cigna.com/static/www-cigna-com/docs/about-us/newsroom/studies-and-reports/combating-loneliness/cigna-2020-loneliness-factsheet.pdf> [accessed: 30 March 2021].
- Czarnowski S. (1936), Ludzie zbędni w służbie przemocy, in: *Dzieła*: Vol. 2, S. Czarnowski, 1956 Warszawa.
- Damasio A. (2006), *Descartes' Error*, Vintage Publishing.
- European Commission (2019), Loneliness – an unequally shared burden in Europe, URL = https://ec.europa.eu/jrc/sites/jrcsh/files/fairness_pb2018_loneliness_jrc_i1.pdf [accessed: 31 March 2021].
- Gadarian S. (2010), The Politics of Threat: How Terrorism News Shapes Foreign Policy Attitudes, "The Journal of Politics" 2010, v. 72: pp. 469–483.
- Giles C., Goodman J., Robinson O. (2021), Covid: The truth behind videos of 'empty' hospitals, URL = <https://www.bbc.com/news/55560714> [access: 03 April 2021].
- Gilovich T. (1991), *How we know what isn't so: The fallibility of human reason in everyday life*, New York: Free Press.
- Goodman J., Carmichael F. (2020), Coronavirus: 5G and microchip conspiracies around the world, URL = <https://www.bbc.com/news/53191523> [accessed: 03 April 2021].
- Haidt J., Joseph C. (2008), The Moral Mind: How Five Sets of Innate Intuitions Guide the Development of Many Culture-Specific Virtues, and Perhaps Even Modules, in: *Evolution and cognition. The innate mind Vol. 3. Foundations and the future*, red. P. Carruthers, S. Laurence, S. Stich, Oxford University Press.
- Haidt J. (2013), *The Righteous Mind: Why Good People Are Divided by Politics and Religion*, Penguin Books.

- Han W.H. (2020), Does Social Exclusion Influence Consumers' Pseudodiagnosticity Biases towards Distribution Brands?, "Journal of Distribution Science" 2020, v. 18, issue 4.
- Hawkley L.C., Cacioppo J.T. (2010), Loneliness matters: a theoretical and empirical review of consequences and mechanisms, "Annals of behavioral medicine: a publication of the Society of Behavioral Medicine" 2010, v. 40, issue 2.
- Hertz A. (1937), Drużyna wodza, "Przegląd Socjologiczny" 1937, v. 5.
- Hertz N. (2020), The Lonely Century. Coming Together in a World That Is Pulling Apart, Sceptre.
- Holt-Lunstad J., Smith T.B. (2016), Loneliness and social isolation as risk factors for CVD: implications for evidence-based patient care and scientific inquiry, "Heart" 2016, v. 102: pp. 987–989.
- Hunt M.G., Marx R., Lipson C., Young J. (2018), No More FOMO: Limiting Social Media Decreases Loneliness and Depression, "Journal of Social and Clinical Psychology" 2018, v. 37, issue 10: pp. 751–768.
- Johnston S.J., Boehm S.G., Healy D., Goebel R., Linden D.E. (2010), Neurofeedback: A promising tool for the self-regulation of emotion networks, "NeuroImage" 2010, v. 49: pp. 1066–1072.
- Keyes R. (2004), The Post-Truth Era: Dishonesty and Deception in Contemporary Life, St. Martin's Press.
- Kong X., Wei D., Wenfu L., Cun L., Xue S., Zhang Q., Qiu J. (2014), Neuroticism and extraversion mediate the association between loneliness and the dorso-lateral prefrontal cortex, "Experimental Brain Research" 2014, v. 233, issue 1.
- Król M. (2015), Pora na demokrację, Wydawnictwo Znak.
- Król M. (2017), Jaka demokracja?, Wydawnictwo Agora.
- Król M. (2018), Do nielicznego grona szczęśliwych, Wydawnictwo Iskry.
- Kundera M. (1987), Nieznośna lekkość bytu, Grupa Wydawnicza Foksal.
- Mair J. (2017), Post-truth anthropology, "Anthropology Today" 2017, v. 33, issue 3.
- Malon M. (2020), Mit genu obywatelskości. Uwarunkowania kształtowania się postaw obywatelskich polskiej młodzieży na przykładzie aktywistów

- Młodzieżowego Strajku Klimatycznego, "Kwartalnik Trzeci Sektor" 2020, v. 51–52, pp. 80–91.
- Mauss M. (1954), *The gift: forms and functions of exchange in archaic societies*, The Free Press.
- Nowland R., Robinson S.J., Bradley B.F., Summers V., Qualter P. (2018), Loneliness, HPA stress reactivity and social threat sensitivity: Analyzing naturalistic social challenges, "Scandinavian Journal of Psychology" 2018, v. 59, issue 5.
- Okruszek Ł., Aniszewska-Stańczuk A., Piejka A., Wiśniewska M., Żurek K. (2020), Safe but Lonely? Loneliness, Anxiety, and Depression Symptoms and COVID-19, "Frontiers in Psychology" 2020, v. 11, issue 579181.
- Ong A.D., Uchino B.N., Wethington E. (2016), Loneliness and Health in Older Adults: A Mini-Review and Synthesis, "Gerontology" 2016, v. 62, issue 4.
- Orwell G. (2008), *Nineteen Eighty-Four*, Penguin Books.
- Oxford Advanced Learner's Dictionary, Discourse, URL = https://www.oxfordlearnersdictionaries.com/definition/english/discourse_1 [accessed: 07 April 2021].
- Oxford Advanced Learner's Dictionary, Post-truth, URL = <https://www.oxfordlearnersdictionaries.com/definition/english/post-truth?q=post-truth> [accessed: 07 April 2021].
- Philips T., Tillinger Koskoff E., Cooper B. (Producers), Philips T. (Director), (2019), *Joker* [Motion Picture], Warner Bros. Pictures.
- Podgórecki A. (1996), Sociotechnics: Basic Problems and Issues, in: *Social Engineering*, ed. A. Podgórecki, J. Alexander, R. Shields, Carleton University Press.
- Radwan A. (2019), Between Historical Negationism and Defamation. Legislator as a Moderator of the Public Debate on the Past, in: *Prawda historyczna a odpowiedzialność prawna za jej negowanie lub zniekształcanie*, ed. A. Radwan, M. Berent, C.H. Beck.
- Redmond S. (2021), That joke isn't funny anymore: a critical exploration of *Joker*: Introduction, "New Review of Film and Television Studies" 2021, v. 19, issue 1.

- Rousseau J.-J. (2004), *The social contract*, Penguin Books.
- Sagan O. (2017), Narratives of loneliness and mental ill health in a time of neo-liberalism, in: *Narratives of Loneliness: Multidisciplinary Perspectives from the 21st Century*, ed. E. Miller, O. Sagan, Routledge.
- Salgado S. (2018), Online media impact on politics. Views on post-truth politics and post-postmodernism, “*International Journal of Media & Cultural Politics*” 2018, v. 14, issue 3.
- Sellaro R., Derks B., Nitsche M.A., Hommel B., van den Wildenberg W.P., van Dam K., Colzato L.S. (2015), Reducing Prejudice Through Brain Stimulation, “*Brain Stimulation*” 2015, v. 8: pp. 891–897.
- Silk J.S., Pramana G., Sequeira S.L., Lindhiem O., Kendall P.C., Rosen D., Parmanto B. (2020), Using a Smartphone App and Clinician Portal to Enhance Brief Cognitive Behavioral Therapy for Childhood Anxiety Disorders, “*Behavior Therapy*” 2020, v. 51, issue 1.
- Vanhalst J., Luyckx K., Van Petegem S., Soenens B. (2018), The Detrimental Effects of Adolescents’ Chronic Loneliness on Motivation and Emotion Regulation in Social Situations, “*Journal of Youth and Adolescence*” 2018, v. 47: pp. 162–176.
- Wang J., Mann F., Lloyd-Evans B., Ma R., Johnson S. (2018), Associations between loneliness and perceived social support and outcomes of mental health problems: a systematic review, “*BMC Psychiatry*” 2018, v. 18, issue 156.
- Ward J. (2017), *The Student’s Guide to Social Neuroscience*, Routledge.
- Wilson E. (2009), Debate at the Harvard Museum of Natural History in Cambridge on 9 September 2009, URL = <https://harvardmagazine.com/breaking-news/james-watson-edward-o-wilson-intellectual-entente> [accessed: 07 April 2021].