

# ‘Are we laughing at the same?’: a contrastive analysis of Covid-related memes in Czech, Chinese and Spanish

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## Abstract

*Humour is often employed as a coping mechanism, with therapeutic effects on those producing and receiving it (Christopher 2015; Samson & Gross 2012). This buffering effect of humour might explain why, at the time of an international pandemic like Covid-19, human beings, independently of their cultural origin, have resorted to humour as a means of alleviating uncertainty and fear, and of enhancing feelings of connection and bonding with others. The proliferation of Covid-related humour has also led to a wide range of studies, with special attention to memes. However, contrastive studies are more limited, especially those comparing very different languages and cultural realities such as the Chinese, the Czech and the Spanish ones. This paper aims to redress this imbalance by analysing a corpus of 300 Covid-memes (100 memes per language). More specifically, we intend to answer the following questions: (i) what dimension(s) of humour are predominant in each language? (ii) what actors do the memes in the three countries target? and (iii) to what extent can these preferences relate to cultural differences/similarities? Applying a mixed-method approach, results show that there seems to be a global preference for affiliative humour while aggressive (and self-deprecating) humour appears to be more culturally bound, with a higher frequency in the Czech and Spanish datasets in contrast to the Chinese one. Likewise, the Czech and Spanish dataset share a significantly higher number of common frames, which might be pointing to a more European, Western type of humour in comparison to the Chinese approach (Jiang et al. 2019).*

**Keywords:** *humour, Covid-19, memes, Chinese, Czech, Spanish.*

## **1. Introduction**

Humour is often employed as a coping mechanism (e.g. gallows humour), with therapeutic effects on those producing and receiving it (Christopher 2015; Samson & Gross 2012). This buffering effect of humour might explain why, at the time of an international pandemic like Covid-19, human beings, independently of their cultural origin, have resorted to humour as a common means of alleviating uncertainty and fear, of enhancing feelings of connection and bonding with others, and of reminding others of our ‘virtual’ co-presence (Yus 2021). Indeed, Frankl (2015: 39) summarised it brilliantly when he posited that “humour was [is] another of the soul’s weapons in the fight for self-preservation”.

These positive effects of humour on its producers and receivers may explain why many individuals (independently of their cultural background) resorted to humour as a mechanism to cope with the uncertainty, anxiety and fear provoked by Covid-19. In fact, during this time, there was a proliferation of memes, jokes, Twitter parody accounts, etc., similar to that triggered by Ebola (see Marcus & Singer 2017). Especially memes, which can be defined as “images and videos that share common characteristics, are distributed online by numerous participants, and are created with awareness of other images and videos” (Jensen et al. 2020) gained popularity. The profusion of memes in our everyday life has also led to the increasing interest of scholars from different disciplines (psychology, language learning, applied linguistics, etc.), leading to a wide range of studies (Chiodo et al. 2020; Jensen et al. 2020; Mayer & Mayer 2021; Mpofu 2021; Ponton & Mantello 2021; Vinokurova 2021). There are different reasons why memes have become particularly popular, also during Covid-19. As argued in the literature, memes are characterised by their “affective potential”, intertextuality, mnemonicity, and visuality (Shifman 2014; Wutz 2016; Dean 2019). They are “transformed by the transmission of many users through the Internet” (Shifman 2014: 448) and, as “remixed messages”, are shared by members of participatory digital culture “for the purpose of satire, parody, critique, or other discursive activity” (Wiggins 2016: 453). Not only the meme creators, but also their distributors, re-posters etc. contribute to their reconstructing. All of this help increase the “interpellative potential of their messages and encourag[e] users to identify with them” and “facilitate collective identity-making by evoking the sense of unity” (Makhortykh & González-Aguilar 2020: 344-345).

Specifically, Covid memes have also been widely analysed, including not only English but also other languages. For example, Chłopicki & Brzozowska (2021) and Norstrom & Sarna (2021) have analysed Polish ones. Chłopicki & Brzozowska (2021) analyse over three hundred memes, movies, and comments collected between February and May 2020. Their results show the presence of universal themes but also local humour based on intertextuality (e.g. allusions to films, and other Polish cultural artifacts or historical periods such as life under socialism).

Although studied from a different perspective, Chłopicki & Brzozowska’s (2021) results are in line with Norstrom & Sarna’s (2021), whose corpus consisted of 1,763 memes from six media platforms, which they approached from a content analysis perspective. Thus, the most common category they found was “bans and orders”, often criticising governmental restrictions as useless and inefficient, with ordinary citizens often depicted as victims of the police and the government, in a combination of aggressive (against the authorities) and affiliative humour (among the ordinary citizens).

Romanian Covid-related humour has also received scholarly attention. Stefani (2020) analysed the ten most popular Facebook pages and groups in Romania in the period March 12-May 14, 2020. Inspired by Ziv’s study (1984), Stefani scrutinised a corpus of over 4,000 Facebook humorous posts (including not only memes but also other formats). His results align with those already discussed, with a prevalence of aggressive humour targeted at those in charge of their inefficient management of the crisis and at minority groups such as the Roma.

Spanish Covid-related memes have also received a great deal of attention. For example, Sola-Morales (2020) studied 360 memes during the lockdown period in Spain. Using content analysis, she found out that emotionality and irony were pervasive strategies. Another interesting study is that by Cancelas-Ouviña (2021), who, taking a qualitative, ethnographic approach, analysed a dataset of 644 memes disseminated through WhatsApp during the lockdown period experienced in Spain (14 March to 21 June 2020). Her results point to different functions such as criticising political decisions, venting out frustrations or describing the new normality. Besides Peninsular Spanish, other varieties of the language have also been studied, such as Puerto-Rican (see Flecha et al. 2021) or Peruvian (see Balarezo-López 2020), with very similar results.

Contrastive studies on the use of memes, however, are more limited and not necessarily connected to Covid-19. For example, Makhortykh & González-Aguilar (2020) compare the functions of over 300 political memes during protest campaigns in Ukraine and Venezuela, two countries which are “characterised by limited media freedom” (Makhortykh & González-Aguilar 2020: 343). Their study shows that, despite the cultural difference between both datasets, they also share common elements such as the prevalence of intertextuality, with references mostly to popular culture (e.g. films, sitcoms) and the use of sarcasm in the case of anti-government memes.

This paper aims to redress this imbalance and contribute a contrastive study of Covid-related memes by analysing the functions of humour in a corpus of 300 Covid-memes in three different languages and cultural realities as Chinese, Czech and Spanish (100 memes per language). Taking Martin et al.’s (2003) and Miczo et al.’s (2009) four dimensions of (mal)adaptive humour as our point of departure, we intend to answer the following questions: (i) what dimension(s) of humour are predominant in each language? (ii) what actors do the memes in the three countries target? and (iii) to what extent can these preferences relate to cultural differences/similarities? To that purpose, we have followed a mixed-method approach (quantitative and qualitative).

The rest of the paper is organised as follows. Section 2 below describes the theoretical framework employed in the current study, focusing on the main dimensions of humour and the methodological problems they pose, together with possible solutions. Section 3 outlines the methodology followed with regard to data collection and its rationale, together with the approach adopted. Results and discussion are presented in Section 4, before concluding and pointing to future research in Section 5.

## **2. Humour dimensions**

According to Meyer (2000), it is possible to distinguish two primary macro-dimensions of humour: unification (with others) and division (from others). These two primary dimensions are also known as affiliative and aggressive (aka disparagement humour) (Martin et al. 2003; Ferguson & Ford 2008; Dynel 2013). Because of its disrupting capacity, aggressive humour has also been defined as a maladaptive practice, as opposed to affiliative humour, which is in contrast considered to be adaptive (Olson et al. 2005; Miczo & Welter 2006; Miczo et al. 2009). Martin et al. (2003: 52) describe affiliative humour as “tolerant and accepting of both self and others”. Saroglou & Scariot (2002) referred to this style of humour as *social humour*. Further, Damianakis & Marziali (2011: 111) argue that social humour is mainly aimed at “creating harmonious relationships with others and providing amusement”. In contrast, aggressive humour tends to draw boundaries between people: typically between those that are targeted (the butt of the joke that is mocked and those who identify themselves with it) and those that laugh at the target.

The target, however, can also be the self: the speaker themselves (or the meme-maker) becomes the butt of the joke (or meme). In this case, it is possible to distinguish two further dimensions: *self-enhancing* and *self-deprecating* humour. As affiliative humour, self-enhancing humour is regarded as an adaptive, psychologically beneficial practice. It takes place when the speaker shows an ability to form a positive, optimistic outlook on life despite the presence of enduring or immediate life stressors (Martin et al. 2003; Olson et al. 2005). In ordinary terms, it could be said that self-enhancing humour stresses the “silver lining” in life. Self-deprecating humour, as aggressive humour, manifests mockery and disparagement of the self, shows a negative outlook towards life and life stressors (even neuroticism).

However, it is important to stress that this proposed distinction is not clear-cut at all, as will be illustrated by selected memes from the national collections below. The “unifying” and “dividing” macro-dimensions are actually not separated from each other. In fact, the unifying function, i.e. the capacity to bring people together, is typically also present in those humorous texts and pictures which can be interpreted as aggressive against somebody else. Although there is a target presented as the out-group that is mocked, another group of people, i.e. those who stand in opposition to the out-group, are affiliated through laughing at the target. In other words, using aggressive humour to disparage others contributes to boosting affiliation of the in-group against the out-group. Also, humour targeting the self often includes elements of both affiliation and aggressivity. Therefore, it needs to be admitted that the proposed four dimensions of humour often overlap and more of them can manifest in one humorous item. Besides that, various other approaches can be taken to explore the capacity of humour to unite and separate people. For example, the sociological perspective, adopted e.g. by Kuipers (2009), allows to understand the relationship between humour and social boundaries, taking into account various social groups’ tastes and styles and differences in their perception of humour. Martin et al.’s (2003) and Miczo et al.’s (2009) four dimensions of humour are thus just one of the approaches that can be taken when attempting to contrast collected humorous material, and one must be aware of their non-rigid nature.

Therefore, also Martin et al.’s (2003) scheme (Figure 1) that summarises the four dimensions of humour must be read with the awareness of the dimensions’ interconnectedness:

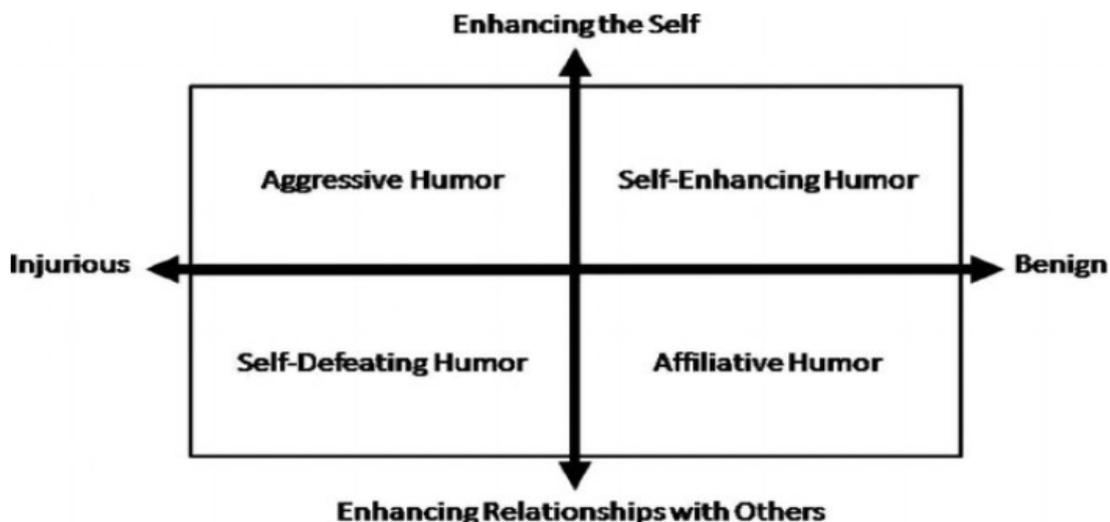


Figure 1. Dimensions of humour according to Martin et al. (2003), as adapted by Besser & Zeigler-Hill (2011: 198)

The scheme should be read not as presenting clear-cut categories, but rather as indicating that the arrangement into humour dimensions works as a continuum. The analysed humour examples could be placed anywhere in the scheme: there are memes which have some prototypical qualities of one of the four dimensions and could be placed near the edges of the big rectangle, but there are also memes which have more dual or multifaceted nature. In the scheme, these would be represented closer to the centre and closer to the dividing lines between the four dimensions, indicating the fact that they might bear characteristics of more than one dimension.

The selected memes from the national collections presented below illustrate the overlapping of the four humour dimensions. Thus, Figure 2 shows how aggressivity against an outgroup (i.e. politicians) can work affiliatively for the ingroup (divides the social actors as “us versus them”). The meme unites ordinary people who criticise their government’s actions, thus attacking the government while affiliating ordinary citizens together.

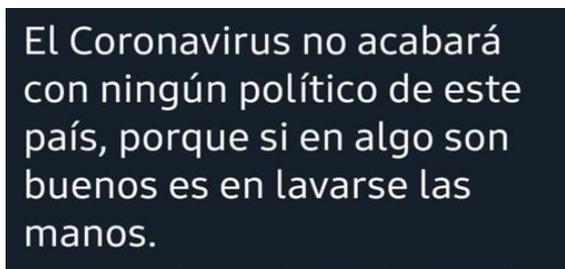


Figure 2. “Coronavirus will not finish with any politician in this country, because if there is something they are good at it is washing their hands”

The following Chinese meme is also a case in point, where the aggressive message serves to promote affiliative feelings among ordinary people. Figure 3 shows two panda bears, the one on the right is captioned “wild Yunnan mushroom” (a specialty of the Yunnan region) while the one on the left is captioned “Coronavirus”. The message on top is uttered by the mushroom, which is threatening the virus to get out of Yunnan province, located at the northwest of China, as it is “its turf”. The meme hence delivers a positive message to people in Yunnan that they will eventually clear out the virus from their land.



Figure 3. “Listen, Yunnan is my turf!”

Figure 4 shows how self-deprecating humour can also include aggressiveness to others. The meme can be considered self-deprecating because its author comments on how bad they feel “every weekend” even outside the pandemic situation and degrades the self through pointing to their lack of sociability. They liken their usual weekends to the current situation with imposed government restrictions and closed entertainment venues. The first part of the meme’s wording addresses the recipients and expresses the author’s gloating over the fact that other people will feel as bad as the author. An element of aggressivity can thus be identified in the meme, as well as the self-deprecating quality, perceptible mainly in the last clause, where the author negatively evaluates their feelings and basically admits that they usually do not get any entertainment even when this is not due to the regulations.



Figure 4. “Sooo and now when they closed all entertainment for you, you’ll finally experience how bad I feel every weekend”.

This multifaceted nature of humour, illustrated by selected memes above, poses a methodological challenge when classifying the dataset, as the four dimensions are not “watertight compartments” but rather overlapping categories that can be prototypically represented by a number of features. In the present paper, in order to be able to classify the datasets and assign each of the memes one predominant humour dimension, we have followed the main tenets of prototype theory (Rosch 1978; Mervis & Rosch 1981). Geeraerts (2008: 146-147) summarises them into four main principles:

- (i) Prototypical categories cannot be defined by means of a single set of criterial attributes.
- (ii) Prototypical categories exhibit a family resemblance structure.
- (iii) Prototypical categories exhibit degrees of category membership; not every member is equally representative for a category.
- (iv) Prototypical categories are blurred at the edges.

Taking these four tenets into account, our first analysis focused on examples that could be considered prototypical of each category. This proved viable especially in assigning the affiliative dimension: as affiliative were considered memes which employed a linguistic structure focusing on first person plural forms and speech acts like advice, which appealed to the ethos of “being all in the same boat” and included non-offensive images. A representative example is for example Figure 5 from the Czech dataset, where the creator addresses the unity of people in having to obtain masks:

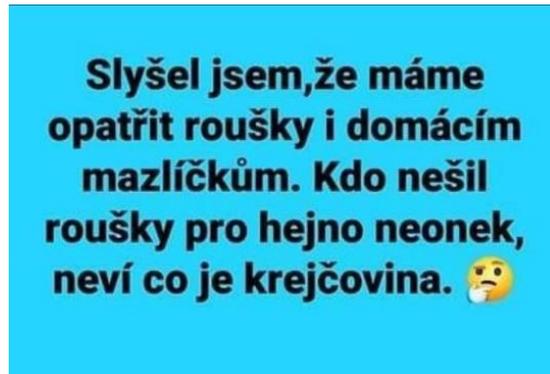


Figure 5. “I’ve heard that we should get masks also for pets. Those who haven’t sewn masks for a school of aquarium fish don’t know what tailoring is”.

Another representative of memes considered affiliative is the following Chinese meme shown in Figure 6, which demonstrates how the creator appeals to the public to get Covid tested and emphasises the unity of the citizens from different districts of Guangzhou, China, in combating the virus.



Figure 6: “Huadu, Nanhua, Huangpu, Baiyun, Haizhu, Liwan, Yuexiu, Panyu, Zengcheng, Tianhe, Conghua (the eleven districts of Guangzhou), let’s do Covid test together”.

In the case of “fuzzy” tokens with more humour dimensions perceptible, it was chosen to give priority to the strongest value for methodological purposes (i.e. to ease the quantification process).

It was agreed that all the memes dealing with the speaker (or meme creator) being the target would be regarded either as self-enhancing or self-deprecating (rather than affiliative although it is common that memes with the speaker operating as the butt of the joke might affiliate this user with other users being in the same or similar situation). We considered as self-enhancing memes all those that boosted a positive approach to life despite the hardness of the situation. In terms of language, authors of such memes often resort to first person (singular or plural), and relational (copulative) verbs which ascribe a positive quality to the user(s) themselves, as in the following example from the Spanish corpus (Figure 7), which circulated after the first 15 days of the lockdown. In the meme, the user states their intention to ‘reverse’ the lockdown by doing an ‘anti’ lockdown once the pandemic is over and staying away from their place for 15 days in a row, drinking and clubbing:



Figure 7. “When all this is over, I’m doing the lockdown the other way round, 15 days away from home!”.

Mememes targeting the self and showing a negative, sarcastic, or even destructive approach were quantified as self-deprecating. Linguistically, they are usually realised through the use of first person pronouns and accompanied by negatively evaluative lexis (including taboo or swear words). This can be seen in Figure 8 from the Spanish dataset, where the speaker sarcastically admits getting used to being locked down and has started doing handiwork (nooses to hang themselves):



Figure 8. “Good morning, group. Sixth day locked down and everything is fine. I’ve started doing some rope handiwork”.

Also Figure 9 was regarded as a self-deprecating meme given the contradiction between the written message, which apparently depicts a positive attitude (“I’m colouring mandalas to relax”) and the actual image (which shows the user is far from “relaxed”):

Aquí pintando un mandala pa  
relajarme

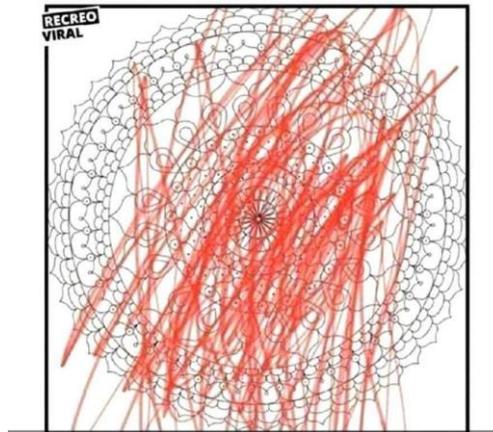


Figure 9. “Here colouring a mandala<sup>1</sup> to relax”.

Furthermore, it was agreed that all tokens where aggression at a third-party could be identified would be primarily quantified as aggressive, even though they can be seen as affiliative for the in-group, as described above. For example, Figure 10 from the Spanish corpus was considered aggressive: the outgroup (people from Madrid) are targeted as unethical given that, rather than staying at home as the rest of the Spanish regions, they were notoriously travelling to their ‘holiday’ houses, hence endangering the population of those other regions. (This was especially criticised given that Madrid was the epicentre of the pandemic in Spain when it first stroke the country):



Figure 10. “What are we?” “Madrilians!!” / “And what do we do during the lockdown?” “We go on holiday to the coast” / “Why?” “Because we are cockier than anyone and we don’t give a damn about the rest of the population”.

This classification procedure allowed us to identify the prominent characteristics of each humour dimension and assign each meme in the collection with the dimension which was predominant in it. The interpretation of findings gained from the quantitative analysis must,

<sup>1</sup>It is popularly believed that colouring mandalas has a soothing effect on adults that may suffer from stress and/or anxiety. This common belief has been further supported by psychological research (see among others Flett et al. 2017; Lee 2018).

however, be made with the awareness of the fuzzy boundaries of humour dimensions and the multifaceted nature and broader social functions of humour.

### **3. Methodology**

#### **3.1 Context: Covid-19 in the Czech Republic, China and Spain**

This section aims to provide basic contextual information regarding the development of the pandemic in each of the countries under scrutiny.

In the Czech Republic, the media started reporting on the virus's occurrence in other countries in January 2020. In March 2020, first cases of people infected with coronavirus in the Czech Republic were reported. In March 2020, the Czech government launched a series of strict regulations, culminating with the declaration of the State of Alarm in the country on 12 March 2020, accompanied by closing schools, restaurants and bars, the obligation to wear masks and the restriction on the free movement of people. The State of Alarm was extended several times and lasted eventually till May 2020. The regulations were then loosened over the summer of 2020. However, after that, the number of infections began to rise again, introducing the so-called second wave, with autumn bringing a new series of preventive measures and restrictions as well as another State of Alarm. It was generally considered that the country handled the pandemic situation very well in spring 2020, but approximately a year after the beginning of the pandemic in the country, Czech media reported that the Czech Republic had the worldwide highest number of deaths caused by coronavirus per citizen (Novinky.cz 2021). Some supposed reasons for the rapid spreading of the virus since autumn 2020 were the government's slow response to the changing pandemic situation, but also people's unwillingness to observe the government's regulations and take preventive measures (Kulhánek 2021; Löblová 2020). This might be related to many Czech people's disbelief in the severity of the situation, to their approach to the pandemic just as "media bubble", and to their distrust towards the authorities. It is important to note that the success in slowing down the pandemic in spring 2020 was by many people not perceived as the government's doing. In contrast, a great part of the Czech society blamed the government for its incompetence from the very beginning of the pandemic. In addition, frequent replacements in the function of the minister of health (five times between December 2020 and December 2021) contributed to some people's lack of respect and trust in the country's authorities.

Notably, China was reported as the first country to experience an outbreak of the disease, the first to impose drastic pandemic control measures (including lockdowns and facemask mandates), and one of the first countries to bring the outbreak under control. The cases were firstly reported as a cluster of mysterious pneumonia cases, mostly related to the Huanan Seafood Market, in Wuhan, the capital of Hubei province. It was first reported to the local government on 27 December 2019 and identified as a new coronavirus (SARS-CoV-2) as the cause of pneumonia by Chinese scientists on 8 January 2020. By 29 January 2020, the virus was found to have spread to all provinces of mainland China. The pandemic had been brought under control in most Chinese provinces by late February. By the summer of 2020, the Chinese government had nearly stopped the widespread community transmission and therefore eased pandemic prevention restrictions. However, infection rates increased significantly in March 2022, especially in Shanghai and Gilin. Shanghai's lockdown, which lasted from late March to early June, was regarded as the most severe restriction after the Wuhan lockdown at the beginning of the pandemic, and brought a heavy blow to local medical systems and economy. From the beginning of the pandemic, the Chinese government implemented a zero-Covid strategy aiming to eliminate transmission of the virus within the country and allowing for the

resumption of normal economic and social activity. Generally speaking, Chinese citizens are supportive of the Chinese government's zero-Covid strategy; however, during Shanghai's lockdown, several doubtful views about the stringency of the Covid control policy appeared, especially when few non-Covid elder patients in lockdown zones failed to get timely medical treatment and died due to restrictions.

In Spain, the first official data of Covid-19 were provided by the Government at the end of February 2020, even though later on it has been admitted that there were already some cases in January 2020. Initially, however, the authorities diminished the graveness of the virus by stating it was simply another kind of flu. The rapid spread of the virus, with 11,488 patients and the quasi-collapse of many hospitals, led the Government to proclaim the first State of Alarm (15 to 29 March 2020), which had to be extended from 30 March to 12 April 2020, as the number of people affected by the virus failed to diminish and hospitals were reaching their collapsing peak. At that point, and according to the WHO Spain occupied the third world place in terms of infected inhabitants and the second one regarding the number of deaths, hence becoming one of the European epicentres of the pandemic together with Italy. The Spanish lockdown eventually extended over three months (from 15 March to 21 June 2020), during which the population could not leave their place of residence except for very specific circumstances. An additional problem was the lack of masks and hospital equipment, which contributed to the population's fear and uncertainty and direct attacks against the Government, considered inefficient in their handling of the crisis, especially by the political opposition. These extreme measures were reported to have caused a dramatic increase in the rate of depression, anxiety and stress among the Spanish population (Jacques-Aviñó et al. 2021).

### **3.2 Data collection and corpus description**

The aim of this study was to contrast Covid-related humorous memes shared among social media users in China, Spain and the Czech Republic, and to identify the similarities and differences in these different cultural realities. For the contrastive analysis, material collected on social media in the three countries was used.

Humour in the national languages of the three compared countries was included (Chinese, Spanish and Czech) to make sure that the material under scrutiny reflects the cultural background as much as possible and gives evidence of the local, rather than international, tendencies. Concerning the genre, only humour of the "meme" format was included in the national collections. Comparing national examples of the same format, emerging and being redistributed with similar processes across the digital background, facilitates capturing culture-related similarities and differences between the three analysed collections.

Prior to working together, each of the authors had collected their own corpus of Covid-related memes. Thus, the Chinese humorous memes were collected by one of the authors through two major social platforms in China, namely WeChat and Weibo, during the period from February 2020 to December 2021, amounting to a total of 150 memes. The global Spanish corpus was collected in a similar way, by compiling all the memes related to Covid-19 that the author sent or received from March 2020 to December 2021 on different social networking sites such as Facebook, WhatsApp or Twitter. This rendered over 200 memes. Finally, the Czech corpus was gathered from March 2020 until December 2021 on social sites WhatsApp, Facebook and Instagram and included about 800 memes received by the author on the social sites and solicited from other users of those sites. Due to the different sizes of the national datasets, we randomly<sup>2</sup> selected 100 memes from each of them.-This rendered a corpus of 300

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<sup>2</sup>To randomly select the three datasets, all the memes were numbered in each set and then each of the researchers employed either Excel or Random.org to choose 100 numbers.

examples, which was then analysed, using a mixed-method approach and Martin et al.'s (2003) and Miczo et al.'s (2009) four dimensions of humour as a point of departure, to answer the following research questions:

- (i) what dimension(s) of humour are predominant in each language?
- (ii) what actors do the memes in the three countries target? and
- (iii) to what extent can these preferences relate to cultural differences/similarities?

Each of the authors of the present study rated the memes in their national dataset in terms of the dimension of humour the memes represent (affiliative, aggressive, self-enhancing, self-deprecating) and identified the targets in the memes. The humour dimensions were rated based on the criteria outlined in Section 2 above. Questionable cases were shared among all three raters and consulted along different online meetings, in order to reach an agreement and ensure consistency in rating.

In order to check that the three raters assessed the memes according to the same criteria and that they agree in their interpretation of the dimensions of humour the memes represent, an inter-rater reliability check was performed. For this purpose, 10 examples from each of the three 100-item national datasets were shared with the other raters, thus 30 examples in total were subjected to the assessment by all three raters. After the raters assigned the 30 memes one of the four dimensions of humour, a Light's kappa was computed to determine the raters' agreement.<sup>3</sup> The Light's kappa representing the inter-rater reliability in this study was computed as  $\kappa = 0.68$ , which Cohen (1960) interprets as "substantial" agreement. The examples which not all three raters ascribed to the same humour dimension (8 examples out of 30) were consulted among the raters. It was found out that most discrepancies in the assessment stemmed from the lack of knowledge of the cultural background necessary for a full understanding of the meme's allusions (e.g. a lack of knowledge of pop-cultural works to which the memes intertextually refer, which led the raters to misinterpretations of the humour dimensions the memes represent). For such memes, the context was explained and the three raters agreed on a dimension the memes represent.

The dimensions identified in each national dataset were then quantified. The raters examined what social groups the targets in their memes represent and the results were compared between the three cultural backgrounds.

## **4. Findings**

The following section shows and discusses the findings. For the sake of clarity, it has been divided into three subsections, according to the research questions guiding the present research. Section 4.1. focuses on the way humour dimensions are distributed across the three languages. Section 4.2. discusses the targets of the memes across the datasets. Finally, section 4.3. explores to what extent can these preferences relate to cultural differences/similarities.

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<sup>3</sup> Computing Light's kappa is recommended for fully-crossed study designs with each subject rated by the same sample of raters, as opposed to Fleiss's kappa, which is more suitable for studies in which a number of raters is randomly sampled from a larger population (Hallgren 2012). Light's kappa is calculated as the arithmetic mean of Cohen's kappas computed for each of the rater pairs (Light 1971). Due to its foundation on Cohen's kappa, its advantage over a simple percentage of agreement between the raters is that it corrects for agreements that are expected by chance.

#### 4.1. Distribution of humour dimensions across national datasets

Analysing the 100 memes in each national dataset and determining the most dominant dimension of humour which they represent offered insight into the distribution of humour dimensions across the national datasets. Table 1 summarises these results:

Table 1. Distribution of humour dimensions in the three languages

	<b>Czech</b>	<b>Spanish</b>	<b>Chinese</b>
<b>Humour dimension</b>	<b>Ratio (n=100)</b>	<b>Ratio (n=100)</b>	<b>Ratio (n=100)</b>
Affiliative humour	52 %	38%	62%
Aggressive humour	39 %	46%	25%
Self-enhancing humour	4 %	3%	1%
Self-defeating humour	5 %	13%	12%

As shown in Table 1, affiliative humour is the most frequent choice in the Czech and Chinese datasets, in contrast to Spanish, where it ranks second after aggressive humour. As will be seen in section 4.2, Spaniards seem to have used humour as a means to vent away their frustrations (especially) against the citizens who lack solidarity and endanger the population and against the government measures during the pandemics and the subsequent lockdown, which they considered inconsistent and inappropriate. It is also interesting to note how affiliative humour is markedly higher in the Chinese dataset (62% versus 52% and 38% in the Czech and Spanish data, respectively). The Czech set appears to be rather balanced, with slightly over 50% of the cases depicting affiliative humour.

Regarding the dimensions targeted at the self, results show a low occurrence of self-enhancing kind of humour in the three datasets (with 4% and 3% in the Czech and Spanish corpora and just 1% in the Chinese one). This seems to indicate users' difficulties in finding a "silver lining" in such a traumatic situation as lockdown was. More interesting, however, is the use of self-deprecating humour in the three datasets. Both Spanish and Chinese users seem to favour this kind of maladaptive practice to the same degree (13% and 12% respectively), whereas its popularity among Czech users is lower and there seems to be a preference for mocking other social actors rather than the self.

A chi-square test of independence (see Table 2) was performed to examine the relation between humour dimensions and linguaculture. The relation between these variables was significant, p value being =.0008. Hence, the variable of linguaculture is likely to affect the kind of humour produced.

Table 2. Pearson chi-square test

	Value	df	Asymptotic significance (bilateral)
Pearson chi-square	17.523 <sup>a</sup>	6	.008
Likelihood ratio	18.649	6	.005
Linear by linear association	.006	1	.939
N	300		

#### 4.2. Social targets

It was found out that the social actors which the aggressive memes target could be categorised as belonging to one of the following groups: authorities and government representatives, celebrities, nationality, minority and religion groups, regional groups, ordinary citizens, family members and the virus itself. The group of authorities and government representatives includes politicians, representatives of institutions and the police enforcing the observance of protective measures. The group of celebrities includes publicly known figures, other than the representatives of government and authorities, such as actors, singers, and influencers. Targeted nationality, minority and religious groups include representatives of nationalities outside the home country as well as (ethnic) minorities within the home country. The category of regional groups concerns people targeted because of their affiliation to a specific locality within the home country. Targeting family members reflects the relationships between, most often, husbands and wives or parents and children. Finally, the group of ordinary citizens includes people living in the home country, not differentiated based on their race, nationality, religion or cultural background. This final group is typically targeted for different reasons, such as their lack of solidarity to others, abusive or non-law-abiding behaviour during the pandemic, their opinions on the severity of the pandemic and on the legitimacy of authority decisions, among other things.

Table 3 illustrates the distribution of the targets across the aggressive memes in the three datasets:

Table 3. Distribution of social actors targeted in the three languages

Social actors targeted in the memes	Czech		Spanish		Chinese	
	Tokens	Ratio (n=39)	Tokens	Ratio (n=46)	Tokens	Ratio (n=25)
Authorities/Government	16	41 %	11	24%	1	4%
Celebrities	3	7.7 %	6	13%	0	0%
Ethnic groups/religious groups/other nationalities	10	25.7 %	5	11%	1	4%
Regional groups	0	0 %	4	8.7%	10	40%

Ordinary citizens	5	12.8 %	16	34.6%	9	36%
Family (husbands/wives)	5	12.8 %	4	8.7%	0	0%
Virus	0	0%	0	0%	4	16%

As will be discussed in Section 5, targeting family members is a particularly interesting case as memes targeting the difficulties of being lock downed with one’s family members are rather common in the case of Czech (12.8%) and Spanish (8.7%) memes, as can be seen in Figures 11 and 12. Figure 11 resorts to intertextuality by comparing the lockdown with one’s family to the horror film *The Shining*:



Figure 11. “A couple of weeks locked down with the family. What could possibly go wrong?”

Figure 12 depicts a situation on the 20th day of lockdown when a wife is so fed up with her husband that she is getting ready to kill him:



Figure 12. “LOCKDOWN, day 20. My wife started gardening, but she doesn’t want to tell me what she’s going to plant...”

Interestingly, none of the Chinese memes target the family, which could be explained by the core value attached to families in Chinese culture. Furthermore, it has been argued that “beliefs and values related to family are as strong as religious beliefs for Chinese” (Chen 2000: 271). This strong belief in the family could explain why it is not considered as a laughing matter.

As shown by Table 3, Czech memes mostly target the authorities and the government (41%) for taking unpopular decisions, which a lot of people perceived as a nuisance and restrictions on

their personal freedom, for their lack of competence in trying to solve the crisis and for their inability to adopt the right measures. This is illustrated by Figure 13, which shows the Czech Prime Minister announcing that, instead of providing masks for the country's citizens, the government will donate sewing machines, which refers to the lack of protective medical equipment leading people to making their own at home at their own expense.



Figure 13. “There are still no masks. But we’ll start a subsidy programme for sewing machines”.

The category of other ethnic groups and nationalities follows with 25.7%. Such memes reflect the stereotypes generally held by the Czech population against other nationalities. Besides this, however, the memes target those who are to blame for spreading the virus. The representatives of other nationalities are often depicted in the Czech memes as a threat for the citizens of the home country and the need to avoid them or expel them from society is stressed. Thus, the frequent targets in the Czech dataset are representatives of those countries or areas, in which the virus spread earlier than in the Czech Republic and which happened to be perceived as epicentres of the disease, as in Figure 14. In this meme, the director Bong Joon-ho works as a representative of Asians, in general, and the depiction of other people running away in panic after seeing him blowing his nose constructs him, and the ethnic group he represents, as a threat.



Figure 14. Asians as a threat

As in the Czech dataset, the government and authorities are also a common target in the Spanish subcorpus (24%), criticised for the lack of competence in dealing with the crisis and for

pretending to be adopting top quality measures but actually failing to do so, as in Figure 15, which includes two examples. Given the lack of masks in Spain, the Spanish government bought a large shipment of new masks from China, which proved to be extremely faulty (notice also that there is aggressiveness against this population by stereotyping the bad quality of their products). The example on the right points to the same idea, but directed to a different medical equipment (respirators and inhalers), which were also bought from China:



Figure 15. Picture on the left: “The masks bought by the Government from China are already here”. Picture on the right: “On their way the new respirators Pedro Sánchez bought in Chinese shops”.

However, it is interesting to point out that the government is not the most frequent target in the Spanish subcorpus. In fact, the most frequent target is ordinary citizens (34.6%). They are often criticised for their lack of solidarity and for not abiding by the rules, hence endangering the whole population, as illustrated in Figure 16, where the meme creator criticises those citizens pretending to walk their fake dogs. Another frequent meme is to condemn those that lie when going out, but pretend to be going to ‘essential’ places (e.g. hairdressers, doctor). In fact, during lockdown time, the government established a list of ‘essential’ places that allowed citizens to abandon their lockdown. Walking the dog was also allowed during lockdown, which triggered a great deal of memes of citizens bending the law to their own benefit, as in the meme below. Arguably, however, it could also be claimed that these memes also help to affiliate ordinary citizens against the police, as these are citizens who manage to outwit the law and the police. Thus, for law-abiding citizens that follow the rules, these memes might be a critique of those citizens that do not. However, other recipients might derive a humorous pleasure precisely from the fact that it is possible to break the rules, no matter how strict they are.



Figure 16. "Every law has a loophole".

Regarding the Chinese dataset, it is notable that besides the lack of memes targeting the family, there are, unlike in the Czech Republic and Spain, also almost no memes targeting the government. This is likely to be caused by the sociopolitical situation in China, which does not allow for resistance to authorities. Memes that convey aggression against certain regional groups and fellow citizens are the most common, with 40% and 36% respectively. Since the Chinese government is going through another outbreak in 2022, many local governments are carrying out the "two covid tests within three days" policy to timely detect and control any suspicious case. As the city that suffered the most in the first round of the outbreak, Wuhan's government and its inhabitants have frequently been teased by people from other cities in China for being extremely compliant with Covid-prevention rules. Figure 17 shows that a cat is getting a Covid test, while the doctor asks "Are you from Wuhan, since you already got calluses in your throat?".



Figure 17. "Are you from Wuhan?"  
"How did you know?"  
"Since you already got calluses in your throat".

Apart from aggressiveness toward regional groups and fellow citizens, there are also 16% of memes that are targeted to the Covid virus itself, which is a distinct feature of the Chinese dataset. As shown in Figure 18, the personified panda meme represents an ordinary Chinese

citizen, who shows an angry face and raises his arms to indicate his indignation. The text at the top of the meme states “eliminating Covid, getting freedom”. Clearly, aggression in the meme is directly targeted to the virus rather than any people, social groups or institutions. It can be inferred that these memes are created to enhance bonding between individuals and share sympathy with those who are suffering from covid by jointly condemning the virus.



Figure 18. “Eliminating Covid, getting freedom”.

## 5. Discussion

The contrast among the three datasets reflects both similarities and differences that show that, despite different cultural realities, human beings also had common reactions to the dramatic situations caused by the pandemic.

Regarding the similarities, it is interesting to observe that the three datasets seem to avoid the use of self-enhancing humour, albeit this is slightly more frequent in the case of Czech and Spanish (4% and 3%, respectively). As already mentioned, this might be due to the fact that this kind of humour may be perceived as a lack of modesty or seriousness in front of such a dramatic situation. This close relationship to modesty might also account for the higher use of self-deprecating humour in both the Spanish and Chinese corpora, where modesty is positively perceived as a social value with deep roots in Confucianism (see Xiong et al. 2018). This also explains why there is a preference for self-deprecating humour among Spanish and Chinese users, who seem to favour this kind of maladaptive practice to the same degree (13% and 12% respectively). In fact, self-denigration, especially among peers, seems to be a common practice in general Spanish and Chinese interaction, as it may help to promote in-group solidarity by simultaneously displaying modesty (del Río 2013; Mir & Cots 2019; Piwowarczyk 2019; Walkinshaw et al. 2019, among others).

Another interesting similarity is the frequent use of affiliative humour (especially in Czech and Chinese memes). Affiliative humour is markedly the most frequent type in the Chinese corpus (62%), which might be evidence of a higher tendency towards collectivism and unity, but also a reflection of the political situation in the country.

It is interesting to notice that Spanish memes favour aggressive humour, which seems to be counterintuitive in a culture ranking high in collectivism. However, it can be argued that these memes also serve to affiliate the ingroup versus other groups, hence also performing an affiliating function. For example, when Spanish memes resort to aggressive humour to criticise the government or other citizens who do not abide by the laws, they are joining forces against

these two groups. This seems to be a trace of honour-based collectivism, which can be argued to be a characteristic feature of Spanish culture. As argued by Uskul et al. (2010: 11),

[w]hereas among Confucian-based collectivism, the way to maintain positive relations is through a norm of modesty, for honour-based collectivism, the way to maintain positive relations is through a norm of positive representation of the self and ingroup and negative representation of out-groups.

A similar tendency toward affiliating the in-group against the out-groups can be found also in the Czech memes, where government representatives and other nationalities rank the highest among the targets of aggressive memes (41% and 25.7% respectively). Such memes basically construct the in-group as the group of the citizens of the nation, who stand in opposition to the geographic and ethnic outsiders or to the politicians and elite figures who are not part of the in-group of the ordinary citizens. The tendency towards mocking and criticising the government representatives might, in the case of the Czech Republic, also stem from the low pride of Czech people of the functioning of the Czech democracy and the state's performance in the context of other European countries and the world (Kolaříková 2020). As explained by Šubrt & Vinopal (2013), this might be ascribed to the fact that the Czech Republic is one of the states that have undergone a period of authoritarian or totalitarian system of governance. After 1989, a post-socialist transformation of the Czech society has occurred, and the experience of the regime and the need to define a new political and economic identity of the nation still reflects in the people's perception of the status of their country and its representatives.

It is with respect to social targets in aggressive humour that the most interesting differences emerge between the three datasets. Thus, the sociopolitical situation in China shows the lack of aggressiveness against authorities, as opposed to the Czech and Spanish memes, which do not refrain from criticizing their respective governments for the incompetence to handle the pandemic. Interestingly, the Chinese dataset includes a new target that seems to substitute for the government, which is the virus itself, personalised as the enemy and attacked by the population. The anthropomorphism of disease is far from new. For example, Marcus & Singer (2017) show how the lethal virus of Ebola underwent the same phenomenon, giving rise to an anime character (Ebola-chan) who became extremely popular on social media. Arguably, the personification of disease (also of death) allows to reduce it to a human scale, hence permitting other human beings to fight against and defeat it. In fact, it is also interesting to point out that a similar process to the personification of the virus in China has been observed in Spain, where there is a Twitter parody account (@CoronaVid19) hosted by Coronavirus "himself" (the writer claims that the virus is male), where Covid19 expresses his thoughts, opinions and feelings.

Another common target among Czech and Spanish memes seems to be the family. Joking about the hardship of being lockdowned with one's family exhibits the dual nature (aggressiveness-affiliation) as everybody who was locked down with their family seemed to have a bad time usually because of the lack of space, which could often lead to family disputes between husbands and wives, parents and children, and so on. This, however, does not extend to the Chinese dataset, where there are no memes targeting relatives or the family as a unit, as Chinese culture pays extra emphasis on 家和万事兴 (harmony in a family makes everything successful). In Giskin & Walsh's words (2001: xi), "China's notion of family includes communal loyalty, respect and responsibility, love, trust and maintenance of life essence, as well as harmony and balance, through relational living. Family is, then, complex [...] in ways that other cultures may not experience". Given this, it is more likely to be related with genuine insult if the targets of memes are close family relatives.

Czech and Spanish memes also share other common targets which are not present in the Chinese set, such as celebrities –especially in the Spanish corpus– or other ethnic or national

groups. Factors such as the geographical location or size of the country itself may also play a role in the social target selected. For example, Chinese memes do not include aggressive memes against other nationalities but they do against other regional groups (40%). The size of the country, much larger than Spain or the Czech Republic, may be a factor here. Furthermore, historically, the Chinese have identified distinct regional behavioural stereotypes in regions (Young 1988; Littrell 2007). On the contrary, the Czech Republic tends to be described as quite a strong nation-state, which has undergone several gainings of independence and separations from bigger state bodies in history (such as the independence from the Austro-Hungarian Empire in 1918, the split of Czechoslovakia in 1993; see Holý 1996; Vlachová & Řeháková 2009; Kolaříková 2020), which makes it a country with more similarities than differences across the territory.

Another common target in the three datasets is ordinary citizens, with much more frequency in the Spanish and Chinese sets (34.6% and 36%, respectively) in contrast to the Czech dataset (12.8%), which seems to be less aggressive against other ordinary citizens. A plausible reason for this is that China, as well as Spain to a certain degree, are often described as societies with collectivist values (Hofstede 2001; Huang et al. 2019), which place greater importance on the goals and well-being of the group. Such societies seem to react more strongly to those that break the rules. As argued by Stamkou et al. (2019: 948), “norm violations vary across cultures as a function of the importance that is attached to group obligations (i.e. cultural collectivism) and social order (i.e. cultural tightness)”.

## **6. Conclusion**

In this study, we contrasted three corpora of 100 covid-related humoristic memes from three different cultural backgrounds: Czech Republic, Spain and China, with the aim to answer three research questions. With regard to the first question “what dimension(s) of humour are predominant in each language?”, results show that humour is employed as a way to affiliate the population, either by using purely affiliative humour or aggressive humour that joins together the in-group against an out-group, as is the case with the Spanish and Czech datasets. Interestingly, the three datasets seem to avoid self-enhancing humour while there is a preference for self-deprecating humour among Spanish and Chinese users.

As for the second question “what actors do the memes in the three countries target?”, results show some similarities between the Spanish and Czech sets, such as the use of humour as a way to express political criticism and dissatisfaction, in contrast to the Chinese users, who avoid targeting authorities. There are also interesting similarities between the Spanish and Chinese users, as both groups employ aggressive humour against those citizens that purposely break the norms, hence endangering other fellow citizens.

Finally, and regarding the third question “to what extent can these preferences relate to cultural differences/similarities?”, while admitting that overly simplistic generalisations regarding culture are to be avoided, it is interesting to note that similarities seem to be more frequent between the Czech and the Spanish memes, which could be argued to be pointing to a global European kind of humour (even if localised, too), more easily accessible and shared by the European community. Interestingly, however, the Spanish set also seems closer to the Chinese one than the Czech one, which seems to derive from Spanish often being described as “possessing some collectivistic features within an individualistic system of values” (Huang et al. 2019: 78). This higher degree of collectivism in Spanish culture, especially when related to other European cultures (Hofstede 2001), seems to explain the ‘closeness’ between these two cultures, which gets reflected in the way humour is made.

Cultural differences and similarities, however, might also result from the fact that the topic at hand (i.e. Covid-19) was truly exceptional and seemed to unify the whole world in common feelings of uncertainty and fear. Future research is intended to contrast memes targeted at different entities such as celebrities, politics and so on, to find out whether the humorous patterns between the three cultures remain stable or new patterns might emerge.

## References

- Balarezo-López, G. (2020). 'Reír para no sufrir: la pandemia del Coronavirus a través del humor de los memes en el Whatsapp' [Laughing not to suffer: Coronavirus pandemic through meme humour on WhatsApp]. *Paideia XXI* 10 (2), pp. 555-572.
- Besser, A. & Zeigler-Hill, V. (2011). 'Pathological forms of narcissism and perceived stress during the transition to the university: the mediating role of humor styles'. *International Journal of Stress Management* 18, pp. 197-221.
- Cancelas-Ouviña, L.-P. (2021). 'Humor in times of COVID-19 in Spain: viewing coronavirus through memes disseminated via WhatsApp'. *Frontiers in Psychology* 12.
- Chen, Y. C. (2001). 'Chinese values, health and nursing'. *Journal of Advanced Nursing* 36 (2), pp. 270-273.
- Cohen, J. (1960). 'A coefficient of agreement for nominal scales'. *Educational and Psychological Measurement* 20, pp. 37-46.
- Chiodo, C. P., Broughton, K. K. & Michalski, M. P. (2020). 'Caution: wit and humor during the COVID-19 pandemic'. *Foot & Ankle International* 41 (6), pp. 763-764.
- Chłopicki, W., & Brzozowska, D. (2021). 'Sophisticated humor against COVID-19: the Polish case'. *Humor: International Journal of Humor Research* 34 (2), pp. 201-227.
- Christopher, S. (2015). 'An introduction to black humour as a coping mechanism for student paramedics'. *Journal of Paramedic Practice* 7 (12), pp. 610-617.
- Damianakis, T. & Marziali, E. (2011). 'Community-dwelling older adults' contextual experiencing of humour'. *Ageing and Society* 31, pp. 110-124.
- Dean, J. (2019). 'Sorted for memes and gifs: visual media and everyday digital politics'. *Political Studies Review* 17 (3), pp. 255-266.
- Del Río, C. M. (2013). 'Can ethnic humour appreciation be influenced by political reasons?'. *The European Journal of Humour Research* 1 (2), pp. 24-42.
- Dynel, M. (2013). *Developments in Linguistic Humour Theory*. Topics in Humor Research, Vol. 1. Amsterdam: John Benjamins.
- Ferguson, M. A., & Ford, T. E. (2008). 'Disparagement humor: a theoretical and empirical review of psychoanalytic, superiority, and social identity theories'. *Humor: International Journal of Humor Research* 21 (3), pp. 283-312.
- Flecha O. J. A., et al. (2021). 'Analysis of the use of memes as an exponent of collective coping during COVID-19 in Puerto Rico'. *Media International Australia* 178 (1), pp. 168-181.
- Flett, J. A. M., Lie, C., Riordan, B. C., Thompson, L. M., Conner, T. S. & Hayne, H. (2017). 'Sharpen your pencils: preliminary evidence that adult coloring reduces depressive symptoms and anxiety'. *Creativity Research Journal* 29 (4), pp. 409-416.
- Frankl, V. E. (2015). *Man's Search for Meaning*. Boston: Beacon Press.
- Geeraerts, D. (2008). *Cognitive Linguistics: Basic Readings*. Berlin, New York: De Gruyter Mouton.
- Giskin, H. & Walsh, B. S. (eds.). (2001). *An Introduction to Chinese Culture through the Family*. Albany, NY: Suny Press.
- Hallgren K. A. (2012). 'Computing inter-rater reliability for observational data: an overview and tutorial'. *Tutorials in Quantitative Methods for Psychology* 8 (1), pp. 23-34.

- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Cultures*. Thousand Oaks, CA: Sage.
- Holý, L. (2010). *Malý Český Člověk a Skvělý Český Národ: Národní Identita a Postkomunistická Transformace Společnosti [Small Czech Person and Great Czech Nation: National Identity and Post-communist Transformation of the Society]*. Praha: Sociologické nakladatelství.
- Huang, F., Teo, T., Sánchez-Prieto, J. C., García-Peñalvo, F. J. & Olmos-Migueláñez, S. (2019). 'Cultural values and technology adoption: a model comparison with university teachers from China and Spain'. *Computers & Education* 133, pp. 69-81.
- Jacques-Aviñó, C., López-Jiménez, T., Medina, L., Rodríguez, I., Queiroga, A., Duarte-Salles, T., de Bont, J. & Berenguera, A. (2021). 'El impacto psicosocial del confinamiento domiciliario por la pandemia de la COVID-19 en España' [Psychosocial impact of home confinement due to the COVID-19 pandemic in Spain]. *Institut Universitari per a la recerca a l'Atenció Primària de Salut Jordi Gol i Gurina (IDIAPJGol)*.
- Jensen, M. S., Neumayer, C. & Rossi, L. (2020). '“Brussels will land on its feet like a cat”: motivations for memefying #Brusselslockdown'. *Information, Communication & Society* 23 (1), pp. 59–75.
- Jiang, T., Li, H. & Hou, Y. (2019). 'Cultural differences in humor perception, usage, and implications'. *Frontiers in Psychology* 10, 123.
- Kolaříková, V. (2020). 'Czech national identity and the elements through which is constructed'. *Czech-Polish Historical and Pedagogical Journal* 12 (2), pp. 66–96.
- Kuipers, G. (2009). 'Humor styles and symbolic boundaries'. *Journal of Literary Theory* 3 (2), pp. 219-239.
- Kulhánek, A. (2021, February 11). 'WHO zkoumala, proč je v Česku tolik nakažených. Jste bezohlední a šíříte virus, vzkazuje prostřednictvím výzkumu' [WHO investigated why there are so many infected people in the Czech Republic. You are careless and spread the virus, it says through the research]. *Mix24.cz*. Retrieved April 20, 2022 from: <https://www.mix24.cz/who-zkoumala-proc-je-v-cesku-tolik-nakazenych-jste-bezohledni-a-sirite-virus-vzkazuje-prostrednictvim-vyzkumu/>
- Lee, S. L. (2018). 'Why color mandalas? A study of anxiety-reducing mechanisms'. *Art Therapy* 35 (1), pp. 35-41.
- Light, R. J. (1971) 'Measures of response agreement for qualitative data: Some generalizations and alternatives'. *Psychological Bulletin* 76 (5), pp. 365–377.
- Littrell, R. F. (2007). 'Influences on employee preferences for empowerment practices by the “ideal manager” in China'. *International Journal of Intercultural Relations* 31 (1), pp. 87-110.
- Löblová, O. (2020, November 9). 'Coronavirus: what went wrong in the Czech Republic?'. *The Conversation*. Retrieved April 20, 2022 from: <https://theconversation.com/coronavirus-what-went-wrong-in-the-czech-republic-149505>
- Marcus, O. R. & Singer, M. (2017). 'Loving Ebola-chan: Internet memes in an epidemic'. *Media, Culture & Society* 39 (3), pp. 341-356.
- Martin, R. A., et al. (2003). 'Individual differences in uses of humor and their relation to psychological well-being: development of the Humor Styles Questionnaire'. *Journal of Research in Personality* 37 (1), pp. 48-75.
- Mayer, C. H., & Mayer, L. J. (2021). 'Humour as a coping strategy for employees in remote workspaces during Covid-19', in Vanderheiden, E. & Mayer, C. H. (eds.), *The Palgrave Handbook of Humour Research*, Cham: Palgrave Macmillan, pp. 289-307.
- Mervis, C. B. & Rosch, E. (1981). 'Categorization of natural objects'. *Annual Review of Psychology* 32, pp. 89–115.
- Meyer, J. (2000). 'Humor as a double-edged sword: four functions of humor in communication'. *Communication Theory* 10, pp. 310-331.

- Miczo, N. & Averbeck, J. & Mariani, T. (2009). 'Affiliative and aggressive humor, attachment dimensions, and interaction goals'. *Communication Studies* 60, pp. 443-459.
- Miczo, N. & Welter, R. E. (2006). 'Aggressive and affiliative humor: relationships to aspects of intercultural communication'. *Journal of Intercultural Communication Research* 35 (1), pp. 61-77.
- Mir, M. & Cots, J. M. (2019). 'The use of humor in Spanish and English compliment responses: a cross-cultural analysis'. *Humor: International Journal of Humor Research* 32 (3), pp. 393-416.
- Makhortykh, M. & González Aguilar, J. M. (2020). 'Memory, politics and emotions: internet memes and protests in Venezuela and Ukraine'. *Continuum* 34 (3), pp. 342-362.
- Mpofu, S. (ed.). (2021). *Digital Humour in the Covid-19 Pandemic Perspectives from the Global South*. London: Palgrave.
- Norstrom, R. & Sarna, P. (2021). 'Internet memes in Covid-19 lockdown times in Poland'. *Comunicar: Media Education Research Journal* 29 (67), pp. 69-79. <https://doi.org/10.3916/C67-2021-06>.
- Novinky. cz. (2021, April 12). 'Nová statistika: Česko má nejvíc obětí koronaviru na obyvatele na světě' [New statistics: Czech Republic has the most victims of coronavirus in the world]. Retrieved April 20, 2022 from: <https://www.novinky.cz/koronavirus/clanek/nova-statistika-cesko-ma-nejvic-obeti-koronaviru-na-obyvatele-na-svete-40356693>
- Olson, M. L. et al. (2005) 'Rumination and dysphoria: the buffering role of adaptive forms of humor'. *Personality and Individual Differences* 39 (8), pp. 1419-1428.
- Piowarczyk, K. (2019). 'Chinese and Western comedy—an introduction into cross-cultural humour research between Taiwan, China and the West'. *Nowa Polityka Wschodnia* 20 (1), pp. 23-39.
- Ponton, D. & Mantello, P. (2021). 'Virality, contagion and public discourse. The role of memes as prophylaxis and catharsis in an age of crisis'. *Rhetoric and Communication* 46, pp. 44-63.
- Rosch, E. (1978) 'Principles of categorisation', in Rosch, E. & Lloyd, B. B. (eds.), *Cognition and Categorization*. Hillsdale, NJ: Lawrence Erlbaum, pp. 27-48.
- Samson, A.C. & Gross, J.J.. (2012). 'Humour as emotion regulation: the differential consequences of negative versus positive humour'. *Cognition & Emotion* 26 (2), pp. 375-384.
- Saroglou, V. & Scariot, C. (2002). 'Humor styles questionnaire: personality and educational correlates in Belgian high school and college students'. *European Journal of Personality* 16 (1), pp. 43-54.
- Shifman, L. (2014). *Memes in Digital Culture*. Cambridge, Massachusetts: The MIT Press
- Sola-Morales, S. (2020). 'Humor en tiempos de pandemia. Análisis de memes digitales sobre la COVID-19' [Humor in pandemic times. Analysis of digital memes about the COVID-19]. *Zer: Revista De Estudios De Comunicación = Komunikazio Ikasketen Aldizkaria*, 25 (49), pp. 33-58. <https://doi.org/10.1387/zer.21817>
- Stamkou, E. et al. (2019). 'Cultural collectivism and tightness moderate responses to norm violators: effects on power perception, moral emotions, and leader support'. *Personality and Social Psychology Bulletin* 45 (6), pp. 947-964.
- Stefani, C. (2020). 'Humor during pandemic in Romania on Facebook'. *Culture e Studi del Sociale-CuSSoc* 5 (1), pp. 323-334.
- Šubrt, J., Vinopal, J. et al. (2013). *Historické Vědomí Obyvatel České Republiky Perspektivou Sociologického Výzkumu*. [Historic Awareness of the Citizens of the Czech Republic through the Perspective of Sociological Research] Praha: Karolinum.
- Twitter.com/CoronaVid19. [Last retrieved July 2022]

- Uskul, A. K., Oyserman, D. & Schwarz, N. (2010). 'Cultural emphasis on honor, modesty, or self-enhancement: implications for the survey-response process', in Harkness, J. A., et al. (eds.), *Survey Methods in Multinational, Multiregional, and Multicultural Contexts*. John Wiley & Sons, pp. 191-201.
- Vinokurova, V. (2021). 'Memes: learning, bonding, and emotional support in times of COVID-19'. *Russian Language Journal* 71 (2), pp. 271-288.
- Xiong, M., Wang, F. & Cai, R. (2018). 'Development and validation of the Chinese Modesty Scale (CMS)'. *Frontiers in Psychology* 9, 2014.
- Young, L. C. (1988). 'Regional stereotypes in China'. *Chinese Studies in History* 21 (4), pp. 32-57.
- Yus, F. (2021). *Smartphone Communication: Interactions in the App Ecosystem*. Abingdon: Routledge.
- Vlachová, K. & Řeháková, B. (2009). 'Identity of non-self-evident nation: Czech national identity after the break-up of Czechoslovakia and before accession to the European Union'. *Nations and Nationalism* 15 (2), pp. 254-279.
- Walkinshaw, I., Mitchell, N. & Subhan, S. (2019). 'Self-denigration as a relational strategy in lingua franca talk: Asian English speakers'. *Journal of Pragmatics* 139, pp. 40-51.
- Wiggins, B. E. (2016). 'Crimea River: directionality in memes from the Russia-Ukraine conflict'. *International Journal of Communication* 10 (35), pp. 451-485.
- World Health Organisation (WHO). (2020). *Situation Report - 71. Coronavirus disease 2019 (COVID-19)*. Available at <https://www.who.int/publications/m/item/situation-report---71>.
- Wutz, I. (2016). 'Brexit and online political activism: on vox populism, slacktivism and online intertextuality'. *Digital Magazine*. Retrieved from <https://www.digitmagazine.com/papers/brexit-and-online-political-activism>.
- Ziv, A. 1984. *Personality and Sense of Humour*. New York: Springer.