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Ofra Klein, Hans-Joerg Trenz, and Nadine Hesse

ABSTRACT

Research on political conflict often overlooks the role of visual-based platforms like Instagram in expressing political discontent, focusing primarily on textual content from newspapers and social media. This paper examines the practicalities and challenges of conducting visual research on Instagram, particularly in the context of comparative studies. We highlight the difficulties associated with sampling representative visual content. Through a small case study, we illustrate how hashtags associated with a single country can generate multiple conflicts, using indicators developed in political protest research and contentious politics. The existence of diverse debates within and across hashtags complicates cross-country comparisons of Instagram content and conflict dynamics. To address this issue, we propose an analytical tool for cross-hashtag analysis, allowing for the assessment of degrees of conflict.

KEYWORDS

Instagram; political conflict; COVID-19; images; comparative research

Introduction

The COVID-19 pandemic arguably has widened gaps between groups in society and has increased conflict and polarization. Such conflicts can come in many forms and degrees. In confronting risk and uncertainty as in the pandemic, political conflicts range from civil or substantive conflicts about opinions or facts, which can still foster reasonable debates, to conflicts about values, often concerning a longstanding entrenched political divide, which may hamper people from engaging in a fruitful discussion (van der Goot, Kruikemeier, de Ridder, & Vliegthart, 2022).

Social media has been an important tool for expressing discontent about the handling of the COVID-19 pandemic. Being limited in their movement, individuals turned to social media, such as Instagram, to express their discontent. Its influence on political conflict can, however, not be limited to its undeniable instrumental aspects as a resource of mobilization allowing conflicting partners to campaign at low cost and reach out to potential audiences (Zeitsoff, 2017). Social media are, above all, changing the quality of political conflict enhancing polarization, ideological divides and disinformation (Barberá, 2020; Bennett & Livingston, 2018)

and comprising the spheres of power, interests and fundamental values (Eigmüller & Trenz, 2020). This new quality of online political conflicts is a challenge for established research methods in the study of contentious politics and its primary focus on resources and opportunities for mobilization and quantitative measurements of impact in terms of visibility, outreach and resonance. During the COVID-19 pandemic, such quantitative indicators of protest are clearly insufficient. While opportunities for mobilization during the lockdown remained limited, social movements in emergency critical junctures nevertheless set the agenda for fundamental debates about freedom, justice, rights and political change (della Porta, 2022).

We ask; *How can we measure COVID-related conflict in different countries on Instagram?* Instagram is a popular platform, especially among younger audiences, but research on the platform still lags behind. In contrast to Twitter or Facebook, many would consider users on Instagram to be less politically engaged and to abstain from political argumentation (Bossetta, 2018). This disregards the key role of visuals as a mediator and amplifier of political conflicts and as a facilitator of cross-cultural diffusion of opinions, often at a global scale

(Mortensen & McCrow-Young, 2022). Not only do social scientists generally have little experience dealing with visual data (Doerr, Mattoni, & Teune, 2013), but Instagram specifically is not research friendly and restricts options of data sampling and applying established research methods. This makes a cross-country comparison particularly challenging, as we will argue in more detail below.

The study contributes to methodological advancements in comparative visual analysis of political conflict. We propose using multiple indicators developed in political protest research and contentious politics to analyze visual content in comparative research. Our approach for measuring conflict in visual and multimodal research accounts for the multidimensional nature of political conflict. This is particularly helpful for the examination of transnational dynamics. We outline different conflict dimensions and discuss methodological choices related to available sampling options in comparative research projects considering the well-known limitations of gathering country-specific representative samples.

Measuring online political conflicts: the role of visuals

Recent findings in political communication research point to the increasing relevance of images for the selective salience and framing of conflicts as well as for their dynamic unfolding (Mortensen & McCrow-Young, 2022). Scholars have examined how images are used to garner sympathy for one side or demonize the other (Awad, Doerr, & Nissen, 2022). Images can also be used as a tool of conflict, representing the “real” and sending more “explicit” messages while, at the same time, evoking strong emotions compared to texts (Joffe, 2008). The question remains to be clarified, however, how text-based indicators for the measurement of the intensity of political conflict can be applied in visual analysis.

Dynamics of contention are often scaled by quantifiable indicators such as level (local, national, international), duration of conflict or number of participants (McAdam, Tarrow, & Tilly, 2001). Such indicators, which typically apply to protest events, can be variably adapted to online contestation, e.g. the spread of hashtags

within and across communities over time. More qualitative indicators for scaling conflicts often refer to substance (identities, power or interests), relationship between opponents (enemies or friends) and likelihood to seek reconciliation. Cultural-identitarian conflicts are typically carried out between groups who fundamentally oppose each other (Grande, Hutter, Kerscher, & Becker, 2016), whereas struggles over power and influence or conflicting interests involve changing actor coalitions and are therefore more easily to compromise. Identitarian conflicts are typically fought across *polities*, e.g. in the form of ethnic conflicts, whereas conflicts over power and influence are carried out as a form of regular *politics* (Easton, 1971). Conflicts about identities and conflicts about interests are however rarely exclusive, but generally overlap. Frequently, contestants do even disagree whether they fight over interests or identities. In addition, cultural or identitarian conflicts are not confined to the relationship between states and populations but are often and increasingly part of in-group contestation.

To build our own measurement, we combine the quantitative and the qualitative aspects of online political conflict applied to visual content. We derive our indicators from a recent study by van der Goot, Kruijkemeier, de Ridder, and Vliegthart (2022) whose measurement of online conflicts comprises two dimensions: subject and style of conflict. In terms of subject, online conflicts can be about substance or about persons (see also Bartholomé, Lecheler, & de Vreese, 2018). They can concern disagreement on political ideas or substantive policy issues, such as public health during the COVID-19 pandemic, or they can target particular actors, such as the performance of the minister of health or the personal traits of a particular scientist or the untrustworthiness of an organization such as the WHO. In terms of style, conflicts can be carried out in a civic manner approaching the ideal of deliberative democracy or they can contain elements of uncivility (e.g. denying facts, ignoring arguments or denigrating others). Examples of civil conflicts are argumentative exchanges about competencies or about the interpretation of scientific evidence. Examples of uncivil conflict

are name-calling (hypocrite, liar), and exaggerated use of language to criticize the politician's character or performance.

Such a distinction between subject and style are useful in research designs that compare online and offline contestation, e.g. a social media discussion forum and a TV talk show. Existing research gives evidence for a higher frequency of uncivil behavior, breaches of terms of conduct and the often more emotional style of online debates that target particular actors and not policies (Bailey, 2021). Framing analysis focuses however mainly on the linguistic and textual manifestations of conflict and disregards the visual components. We propose to relate subject of conflict of visuals to embrace policies, actors and values (deep versus regular conflict) and style of conflict of visuals to framings and evaluations of ingroup and outgroup.

Deep versus regular conflicts: from policy to value and epistemic conflicts

Whether political conflicts stem from a competition of power and interests or from a clash of values and truth presumably has an impact on the intensity of dispute and the likelihood to seek resolution. Applied to social media contestation during the COVID-19 pandemic, we claim that it makes a difference whether a conflict is about the implementation of lockdown rules or whether it is about the questioning of scientific truth or the interpretation of fundamental values such as freedom. In the first case, COVID-19 policies are contested in terms of competences, but the value dimension with regard to the underlying principle of the need to protect public health or the epistemic dimension with regard to the scientific evidence of the threat of the virus are not questioned. Under these premises, the conflict is confined in time and space and solution through discussion and compromise is likely.

In the latter case, van der Goot, Kruikemeier, de Ridder, and Vliegthart (2022) would talk about the special case of conflicts that cannot be resolved due to "deep disagreements" about epistemic or moral principles. Deep disagreements can take the shape in arguments about the status of scientific evidence (for example, the rejection of evidence-based truth in the discussion of origins of the

disease or the vaccines), about religious views (e.g. religion prohibits vaccination) or about absolute values (e.g. the radical interpretation of personal freedom). In extreme cases, these deep disagreements take the form of conspiracy theories where one group believes they are being systematically deceived and have a fundamentally different perception about politics or history (Van der Goot et al., 2022).

During the pandemic, such deep conflicts often emerge when there is a clash of values or a contradiction in reality: some groups consider the value of personal freedom superior to the value of public health, and again others reject scientific evidence as a criterion of truth-finding and insist instead on absolute truths. In these latter cases, established procedures of truth finding or of reconciliation between competing values no longer work. Compromise is made impossible due to a clash of paradigm. We identify references to core democratic values in visuals through direct mentioning in the side texts or through indirect visual representations. The presence of value references in visuals as such, is however not sufficient to draw meaningful conclusions about the degree of conflict. Value references can be an indicator for the expression of consensus (e.g. through in-group references to values) as much as of deep conflict.

The ingroup and outgroups: from identification to polarization

Political conflicts can be individual, e.g., carried out as a personal struggle over power, resources and interests between two politicians, or collectively driven by groups who struggle over redistribution or belonging (Esteban & Schneider, 2008, p. 132). This allows us to distinguish degrees of conflict which can range from individual disputes, group conflicts among different parties or factions and bipolar identity conflicts. While individual conflicts are often held private, and do not need to involve media, group conflicts commonly have a public dimension and compete for media visibility. Individuals as drivers of conflict are typically found in the dimension of regulatory and power policies, e.g. a disagreement among experts about the efficiency of a lockdown measure or a member of an opposition party challenging the authority of

government. Groups as drivers of conflict will seek to position themselves with reference to claims for social justice, particular values or identities (Cerutti, 2001). It makes, however, a difference how ingroups and/or outgroups relate to each other. In the case of redistributive conflicts and claims for social justice, opposing groups typically seek compromise or reconciliation to overcome social injustices. In the case of identitarian conflicts, group divides are consolidated through different levels of inclusiveness and exclusiveness. We can speak of polarized conflicts as a form of bipolar segregation, which emerges from an “interaction of within-group identity and across-group alienation” (Esteban & Schneider, 2008, p. 132). Intense affective polarization is driven by positive feelings and emotions toward the members of the ingroup and negative feelings toward the outgroup (Yarchi, Baden, & Kligler-Vilenchik, 2021). Applied to the new field of social media conflict research, we can extrapolate the general expectation that conflict increases in terms of polarization through the selective exposure to content combined with the fragmentation of relatively homogenous user communities (Törnberg, 2022). Identity conflicts emerge when there is a high degree of heterogeneity across groups and a high level of homogeneity within groups. Conflict is further expected to be more intense if there are two – instead of three or four – clearly defined groups (or poles) with opposing goals.

Framing the self and the other

After establishing whether there is an identitarian dimension of conflict, we look at how the in- and outgroup are framed through the visual representation. Adversarial frames are a common element of news stories in the way “two sides can be pitted against one another” (Schuck, Vliegenthart, & Vreese, 2016). Semetko and Valkenburg (2000, p. 95) define conflict news frames as emphasizing “conflict between individuals, groups or institutions as a means of capturing audience interest.” Importantly, a conflict frame is a type of generic frame not tied to a specific topic but instead transcending themes (De Vreese, Jochen, Holli, & Semetko, 2001). Framings of the self and the other can

apply along a scale from superior, regular and inferior. The highest degree of conflict portrays the self as superior (heroes) and the other as inferior (e.g. criminals). This makes respect and recognition of the other unlikely. The relationship between groups is one of oppression and submission. This is different from a situation of the self as inferior (victims) over the superior other (dictators or villains). In that latter case, domination can trigger a struggle over recognition. Finally, we can distinguish cases where both self and other have some recognized traits (e.g. “ordinary people”) and domination between groups is minimized.

We propose that the frame variable should be applied to how the ingroup frames itself, how it is framed by the other and how the outgroup is framed. Framing the self or being framed by others as ordinary and equal or as victims is less conflictive than framing the self as superior and privileged. Framing the other group as ordinary or as victims or innocent being unaware of reality is a less conflictual way to portray them as being villains, criminals or tyrants. Based on these distinctions, we can state that images attacking the outgroup are more conflictual than images that only focus on the ingroup. We further focus on the visual representation of these groups: images of groups that are depicted as themselves are less conflictual than images that portray the group in a distorted way, e.g. as monsters. Conflict frames generally evoke strong emotions such as anger or fear to signal urgency and build in drama (Jasper, 2018). Powerful experiences, captured by the language of emotion are important in creating a backlash, as they can heighten the saliency of particular concern and can act as a “switch” among a set of basic desires. Images that show empathy or pity toward the outgroup (for example, because they do not know any better) are less conflictual than images that show frustration, anger, or resentment toward the outgroup. We can expect conflict to be more polarized if the expression of anger or resentment toward the outgroup is paired with feelings of their own superiority or arrogance. Conflict is postponed or can even be avoided altogether if the ingroup feels despaired or helpless or remains calm and peaceful.

Tonality

Besides actor or group-specific frames, we measured the general tonality of the image as an appeal to the viewer about the urgency of the cause or the posture toward the issue at stake. An image can send a positive appeal and spread optimism (e.g. through humor), it can remain neutral or ambivalent and it can be overall negative and pessimistic (e.g. through sadness, worry or outrage). We expect that images characterized by an optimistic or neutral tone will exhibit lower levels of conflict compared to images conveying urgency, anger, or which are patronizing in nature.- In contrast to emotions, the tonality of the image cannot be attributed to particular actors but is meant to trigger particular audience reactions like being inspired or amused or being worried and angry.

Research design, data and methods

Country case selection

In this study, we rely on coding Instagram content from three European countries: the Netherlands, Germany and Poland. Governments in the Netherlands, Germany and Poland are similar in the way they took relatively light COVID-19 measures as compared to the hard lockdowns imposed in Italy, France or Spain. In terms of social media usage as well, we find similar patterns of around one-third of the population in each of the three countries using Instagram with 33% of the Polish population using Instagram, compared to 34% of the Dutch population and 28% of the German population (Newman, 2022). Meta applied various preventive measures to reduce the spread of false information on Instagram and Facebook during the pandemic. While expecting little variation in the regulation of this type of content between the three countries, one can expect varieties in how rigorous and strict such policies are applied across different countries.

The three countries differ regarding public opinion about the effectiveness of government interventions on COVID, with the Netherlands being overwhelmingly supportive of the national government's Covid-measures (71% satisfied), Germany divisive (52% satisfied) and Poland even outstandingly negative (36% satisfied) (European Commission,

Directorate-General for Communication, 2021). The Netherlands, Germany and Poland are further distinct in terms of the manifestations of lockdown measures' protest. Despite the reluctance of governments in all three countries to take harsh lockdown measures and the overall supportive public opinion, both the Netherlands and Germany experienced violent protests accompanied by broad online and off-line mobilizations against the government. In Poland, where support of governmental measures was lowest, anti-lockdown mobilizations remained more isolated and larger waves of protests were prevented by the government lowering the restrictions in summer 2020.

Data gathering: technical, legal and ethical issues with analysing Instagram

To collect data from Instagram, researchers can opt for the selection of single user profiles or hashtag searches or a combination of both. Sampling thematic content from single user accounts requires that the researcher is already familiar with the debate and able to apply pre-established selection criteria based on potential impact, prominence, and reach. Prominent figures in the protest movement are not always known to the researcher beforehand (Crosset, Tanner, & Campana, 2019), and their prominence only emerges in the course of online mobilization. Collecting user data has the drawback of including data from many users who are not relevant to the specific context, and it often excludes important content from less popular users. To account for these limitations, we selected posts based on relevant hashtags, meaning all images which were posted with these hashtags were collected, not just images of a few relevant users. Such a sampling strategy can result in a more focused and larger sample of users but encounters various technical hurdles.

Selecting hashtags for comparative research of political contestation poses additional challenges. While very prominent, the main keywords "covid" and "lockdown" were not specific to any particular language, making it difficult to obtain country-specific data (Wallaschek et al., 2022). Attempts to filter posts by location using these tags were unsuccessful, as people rarely tag the location of their posts on Instagram, particularly for political

content. In addition, these hashtags often referred to COVID-19 information such as statistics or private content such as selfies during lockdown, which was not relevant to this study on political conflicts.

Avoiding such generic hashtags, we opted instead for hashtags that explicitly conveyed a conflict dimension, expressing dissatisfaction with COVID-19 policies or opposing vaccination. To identify such conflict-related hashtags we relied on pretests conducted by three country experts, who also coded the data for this study. These pretests included identification of key contestants in the anti-Covid debate online, compiling a list of hashtags that were used by these actors, and utilizing a snowball sampling technique to explore which hashtags were commonly used in conjunction with each other within the same post. We only selected hashtags that were used in more than 100 public posts and eventually arrived at an excel list of over 140 ranked hashtags for the three countries analyzed.¹

For the current study, we chose six hashtags: the Polish hashtags *stopsegregacjisantarnej* (“stop sanitary segregation”) and *falszywapandemia* (“fake pandemic”), the Dutch hashtags *hartvoorvrijheid* (“heart for freedom”) and *hetkloptniet* (“something is off”); and the German hashtags *ichlassemichnichtimpfen* (“I won’t vaccinate myself”) and *coronadiktatur* (“covid dictatorship”). To illustrate the difficulties of carrying out a cross-national study on Instagram, we selected two hashtags for each country that exhibited the most pronounced differences in the variables examined in this study.

The metadata of Images – the text next to the image, the image link and number of likes of the images for these hashtags were collected with Instaloader (cf. Starita & Trillò, 2022). While the most common way to gather user-data from Instagram is through Crowdtangle, a platform made available for selected researchers by Meta. This platform has as a downside that it only includes content shared with these hashtags by highly prominent users with over 500.000 followers or users which have been manually added by the researcher. User-developed data scrapers allow for easier access to data but are more difficult to navigate and risk violating the Terms of Service.

The storage and coding of images scraped from public Instagram profiles raises not only technical but also ethical issues. Many users, despite using public profiles, share highly personalized images, for instance, mothers posting pictures of their children. They are unaware that their images can be used for research purposes and might not give their full consent when asked for permission (McCrow-Young, 2021). As technically and also legally, it is possible to gather such personalized data from public profiles, it is important to take precautions to store the data in a secure place, to respect privacy and secure anonymity in the handling of the data and to remove the images once the data analysis has been carried out (McCrow-Young, 2021). An additional difficulty is that Instagram users, at any point in time, can decide to make their accounts private (Brunns, Moon, Paul, & Münch, 2016). The public status of an image should therefore be constantly put at test by the researcher, and, if necessary, images need to be removed from the dataset. To guarantee the privacy of users, we have therefore chosen to not include images for illustrative purposes in the analysis.

Coding process

For the six selected hashtags, slightly more than 300 images and their side-texts were coded, 50 as representative for each hashtag. All types of images except videos were included in this analysis, including photographs, screenshots, image macros and memes for the purpose of a multimodal analysis, combining both the visual aspect in the image as well as the text in and next to the image. Social media posts frequently employ a combination of visual and verbal elements. To comprehend much of today’s communication, both visual and elements need to be analyzed in combination, as the visual and verbal “tend to work in integrated ways” (Moernaut, Mast, & Pauwels, 2019, p. 484). Within our sample, a large portion of images conveyed the primary message independently (42%), with minimal or no accompanying text. However, in many instances, images and text complimented each other (38%), making it challenging to interpret the image’s meaning without reading the accompanying text. In a smaller number of

cases, the primary message was conveyed in the side-text, with the image being less significant (18%).

The images for this study were coded manually by three coders, who were selected based on their country knowledge of the three different cases. Human-coding is preferable in the cross-cultural analysis of political conflict on social media for several reasons. First, context-specific cultural references cannot easily be decoded automatically. Native language speakers are preferred as they often have sufficient knowledge to understand cultural references. Furthermore, images often contain side text, which contextualize, but also sometimes contradict, the content in the visual. Automated methods do therefore miss the interpretative context that is available for social media audiences and through which the meaning of the image is negotiated. Rossi, Neumayer, Henrichsen, and Beck (2022) show how the automated classification of protest images as more or less violent often remains arbitrary, whereas the choices of human coders can be justified more easily.

Due to the lack of earlier research on conflict and covid, we had to combine deductive and inductive reasoning in the drafting of our codebook. As outlined above, the main dimensions of conflict were pre-established in the form of three related conflict variables: in- and outgroup references, framing of actors and tonality of images of conflict. We then filled each of these variables with relevant values inducted through test-coding.

In- and outgroups could be both individuals or groups explicitly mentioned or represented in or next to the image, but these could also be implicit individuals or groups. For the ingroup, we inductively identified vulnerable groups (elderly, children), medical personnel, businesses, protesters, scientists, politicians, and specific (protest) groups. For the outgroup, these were the government, specific national politicians/parties, virologists/experts/health institutes, pharmaceutical companies, conspiring elites, supranational institutions, media/journalists, businesses, health-care workers. Beyond these specifically mentioned or represented groups, in-and/or outgroups could be implicitly represented in the image, for example through symbols or mythical characters. We created generic codes, such as “people critical with COVID-19

measures” or “the society” as a whole to denominate these reference groups.

The presence or absence of actors themselves are not sufficient for conflict. Images can be more conflictual depending on how these groups are presented, both in text and in visuals. The frames used in this study were inductively identified. We identified several *frames* which represent the ingroup as superior, such as when they perceive themselves as morally right, knowing the truth and being courageous. Frames portraying them as prisoners, being mistreated or discriminated against, instead represent them as inferior or to be pitied. Neutral frames, in turn, would portray the ingroup as mindful, caring, or emphatic. Similarly, outgroups can be framed as superior, e.g. as a danger, as villains or tyrants who limit the rights of people and experiment with their health. The outgroup can also be framed as inferior, and to be pitied, for having no own will and being unaware of the real truth, in contrast to the ingroup.

Finally, the tone and style of images and the side-text was coded in line with earlier research on coding tone in cartoons (Townsend, McDonald, & Esders, 2008), as *serious, mocking or humorous, neutral/ambiguous, or optimistic/positive*. Images could offer a more hopeful view on the covid situation, some images made fun of the situation, even though they might also contain a critical note. Serious images conveyed a message without any sarcasm or irony. Neutral images were neither positive nor negative, but just stated facts or information.

The first round of open coding consisted of coding a subsample of images from the coder’s own country, with the purpose to identify relevant values and categories for each variable. A second round of coding was aimed at refining the first draft of the codebook, adding new values that emerged during the test-coding or merging or deleting others. Final tests were run based on the individual coding of 30 images to determine whether the codebook was functional and sufficient consensus had been reached among the coders on the application of the coding rules. Any uncertainties about how to code an image were resolved through detailed discussions among the three coders.

The intercoder reliability was calculated over a subset of the German data, the only language which the coders had in common. There is no

unanimous agreement on the best index to calculate the intercoder reliability. Various scholars suggest Cohen's kappa as to measure the inter-rater agreement for categorical variables (Lombard, Snyder-Duch, & Bracken, 2002). As Cohen's Alpha is typically computed between two coders, the lowest reported agreement between the three coders is presented. The coders agreed least on the framing of the outgroup (0.28 agreement = 58%), followed by the presence of outgroups ($\kappa = 0.30$, percent agreement = 76%), the framing of the ingroup ($\kappa = 0.33$, percent agreement = 58%), the tone ($\kappa = 0.49$, percent agreement = 69%) and the presence of ingroups ($\kappa = 0.54$, percent agreement = 70%). This indicates a fair intercoder reliability for both variables of framing and the presence of outgroups and a moderate intercoder reliability for the variables tone and presence of ingroups (Lombard, Snyder-Duch, & Bracken, 2002). The relative low reliability can be explained partly due to varieties of interpretation. As previously mentioned, proper image coding requires not only a sufficient understanding of the language but also cultural knowledge of the context in which the image was produced.

Exploring conflict in Instagram images of COVID-19 protests

To highlight the challenges of conducting a cross-national study on Instagram, we selected six representative hashtags that encompass COVID-19 conflicts in our chosen three country cases. This selection aligns with the limited scope of our study and its specific objectives. To illustrate how the same conflict can take different shapes, we describe the way the conflict unfolds among specific actors and groups, how these are represented in the images and the tone or tendency of images.

Ingroup and outgroups

According to our classification, the co-presence of ingroup and outgroup reference in the visual indicates group polarization. The presence of only ingroup instead points to the latency of conflict, whereas the presence of only outgroup points to a manifest conflict. As can be seen in Figure 1, the great majority of hashtags is polarizing, yet with different emphasis to ingroups and outgroups. Some hashtags differ in that they are more inward looking

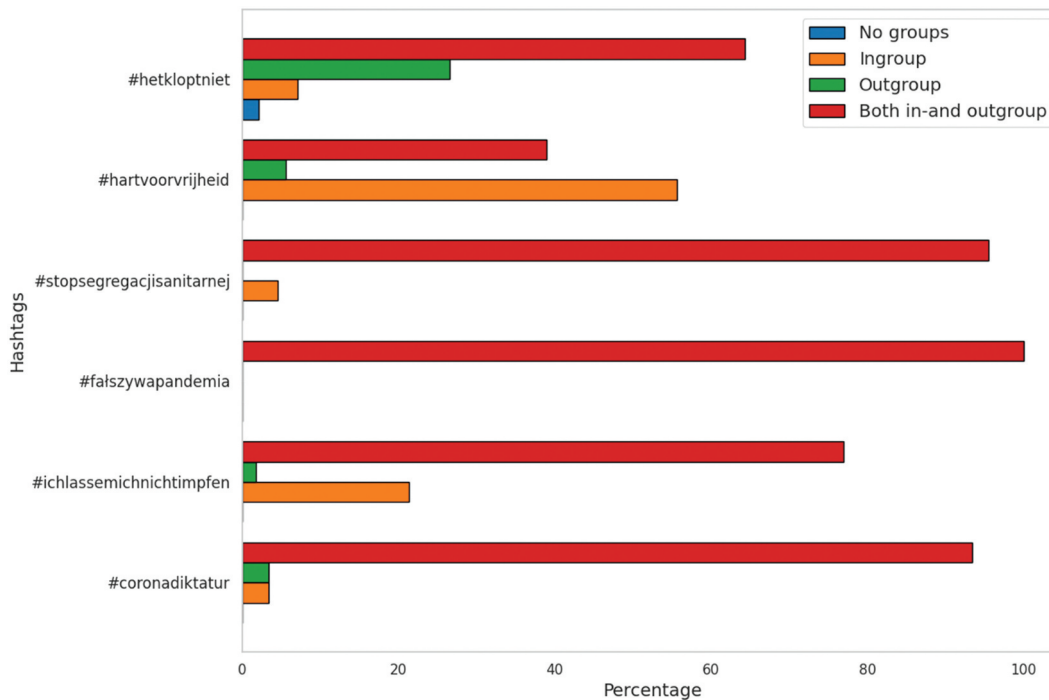


Figure 1. In-and outgroups in images for each separate hashtag (in percentages).

(*hartvoorzijheid* and *ichlassemichnichtimpfen*), whereas only outgroup references are exceptional. The Dutch hashtag *hetkloptniet* differs from the other hashtags with a strong focus on the outgroup and relatively less focus on the ingroup. In the case of visualizations of COVID-19 related images, polarization tendencies are observed, primarily reliant on how both the self and the other are portrayed, indicating a higher degree of conflict.

When going more deeply into the different actors that are central in the conflict, we see that hashtags differ largely both between and within countries. The German hashtag *coronadiktatur* refers to a very generic ingroup, people opposed to measures in general (Table 1). For the German hashtag *ichlassemichnichtimpfen*, however, ingroups are more often personalized, e.g. referring to the account holder themselves or they remain unspecific, potentially addressing the entire population. In the Polish case, ingroup references tend to be even more specific: the *stopsegregacjisantarnej* hashtag identifies with politicians, primarily of opposition parties Ruch Narodowy and Konfederacja, as ingroup members, and the *falszywapandemia* hashtag builds references to religious groups. In the Dutch case, the *hartvoorzijheid* hashtag provides for

the identification of the anti-lockdown and covid measures protesters, whereas the hashtag *hetkloptniet* acknowledges more general, unspecified groups as self-references.

This variety is also visible in who is represented as an outgroup (Table 1). For the hashtags *hartvoorzijheid* and *ichlassemichnichtimpfen* the outgroup is less central. When outgroups are attacked, these are mainly parties or politicians. For the German hashtag *coronadiktatur*, the outgroups are more diverse, ranging from health institutes, government, media personalities and virologists. The Dutch hashtag *hetkloptniet* focuses strongly on people adhering to covid measures as an outgroup. For the two Polish hashtags, party leaders and the government are central, but the hashtag *falszywapandemia* more often attacks actors such as Bill Gates, showing a stronger link with conspiracy theories.

The analysis reveals a large variety of actors as carriers of the conflict with differences across countries and hashtags. The visual depiction of conflict is not just relying on the personalization of the contestants but in important ways also on group frames as we describe in the following section.

Table 1. Groups central in the images for each separate hashtag (in percentages).

	Ingroup			Outgroup		
	None	Specific	General	None	Specific	General
<i>coronadiktatur</i>	3,6	10,7	85,7	7,7	84,6	7,7
<i>ichlassemichnichtimpfen</i>	1,6	19,7	78,7	39,4	45,5	15,2
<i>falszywapandemia</i>	0	61,1	38,9	0	78,6	21,4
<i>stopsegregacjisantarnej</i>	0	61,4	38,6	0	83,8	16,2
<i>hartvoorzijheid</i>	5,6	50	44,4	70,6	23,5	5,9
<i>hetkloptniet</i>	28,6	21,4	50	14,3	50	35,7

Table 2. Framing of in- and outgroups for each separate hashtag (in percentages).

INGROUPS:	No Frame	Superior	Inferior/Pitied	Ambivalent
<i>coronadiktatur</i>	33,3	54,2	8,3	4,2
<i>ichlassemichnichtimpfen</i>	20	40	18,2	21,8
<i>falszywapandemia</i>	0	77,8	11,1	11,1
<i>stopsegregacjisantarnej</i>	14	46,5	32,6	7
<i>hartvoorzijheid</i>	35,3	23,5	5,9	35,3
<i>hetkloptniet</i>	40	40	10	10
OUTGROUP	No Frame or neutral	Danger/to be feared	To be pitied	
<i>coronadiktatur</i>	8,3	75	16,7	
<i>ichlassemichnichtimpfen</i>	19,1	66	14,9	
<i>falszywapandemia</i>	5,9	76,5	17,6	
<i>stopsegregacjisantarnej</i>	10,3	84,6	5,1	
<i>hartvoorzijheid</i>	33,3	66,7	0	
<i>hetkloptniet</i>	45,5	45,5	9,1	

Framing of groups

The framing variable refers to the classification of the ingroup as equal or inferior and the outgroup as perceived with pity and understanding, neutral or rather as oppressive and evil. Table 2 provides an overview of the different frames used for this study and their classification.

In the Dutch case, the hashtag *hartvoorvrijheid* displays a rather low level of conflict. The ingroup mainly refers to protesters who are framed as committed, misunderstood and calm and thus do not seek confrontation with others. Outgroup framing is less frequent, and where it occurs, the outgroup appears as “lacking comprehension” or as “someone who is not worth to engage with”. For the hashtag *hetkloptniet* instead, ingroup references are mainly used to express superiority over the outgroup: “we are sane, morally right and aware of reality”, whereas others are “imposing rules or blindly following them”. The group frames are thus much more confrontational through references to violations of values, such as justice, equality and freedom: the morally upright people portray the others as “tyrants”, who create divisions in society, discriminate against groups, limit their rights and freedom and purposefully disguise reality.

In the German case, the hashtag *ichlassemichnichtimpfen* ingroup frames refer to superiority paired with pity, such as independent thinking, speaking the truth or being mindful and calm. This prevails over inferiority frames such as being discriminated. The second hashtag (*coronadiktatur*) is slightly more confrontational focusing primarily on ingroup superiority frames, “being sane/clear thinking” making up close to a third of the frames, followed by “revealing or speaking the truth” or “being morally right”. With respect to the outgroup, the hashtag *ichlassemichnichtimpfen* portrays the other more often in a pitiful and thus less confrontational manner, such as “being unaware and just do not know any better” or as “being out of touch or stupid”, as giving a biased truth or purposefully dividing society. The hashtag *coronadiktatur* is again more confrontational, ascribing direct responsibility to the other as “being oppressive” or ‘tyrants or as “being incompetent” and as “disguising reality”. The hashtag *ichlassemichnichtimpfen* more often portrays the outgroup in

a pitiful manner as they are unaware and just do not know any better. In the Polish case, around a fourth of images linked to the hashtag *stopsegregacjisantarnej* portray the ingroup as a “victim of discrimination”. Visuals that are linked to the second hashtag (*falszywapandemia*) focus more on the superiority frame and portray ingroups less as victims. This is in line with the thematic focus of the hashtag denying the reality of the pandemic. In the outgroup description, a strongly negative tone prevails. For the hashtag *stopsegregacjisantarnej*, the outgroup is framed as “discriminating”, as “tyrants” and “gamblers” who experiment with the population. The hashtag *falszywapandemia* focuses on the reality contestation, describing the other as “giving a biased truth”, “hiding facts”, “villains” or “dangerous. The hashtag *falszywapandemia* is slightly more confrontational as anger towards the outgroup is more often paired with framing the ingroup as superior. Returning to the central question of this study, the identified frames demonstrate the diverse visual representations of conflicts highlighting opposing poles and shedding light on actors” different degrees of involvement in the conflict. This is further emphasized by the tone of the image.

Tone of the image

The tone of the message can signal the level of seriousness or urgency in an image. Even though all the images in the sample discussed the discontent with the COVID-19 policies, the tone of image can vary widely (Figure 2). The tone of images shared with the hashtags *coronadiktatur*, *hetkloptniet* and especially *stopsegregacjisantarnej* were outright serious. Images posted with these hashtags often were expressing worry, anger, outrage or even encouraged viewers to take action. Images posted under the Polish hashtag *falszywapandemia*, which were generally more ironic and sarcastic, but often also patronizing in nature. Such images expressed irony about the covid measures and mocked people who took these measures seriously. The hashtag *hartvoorvrijheid* is mostly positive and optimistic in tone about the course of the pandemic, depicting individuals showcasing positive coping strategies amidst the challenges of lockdowns or images and

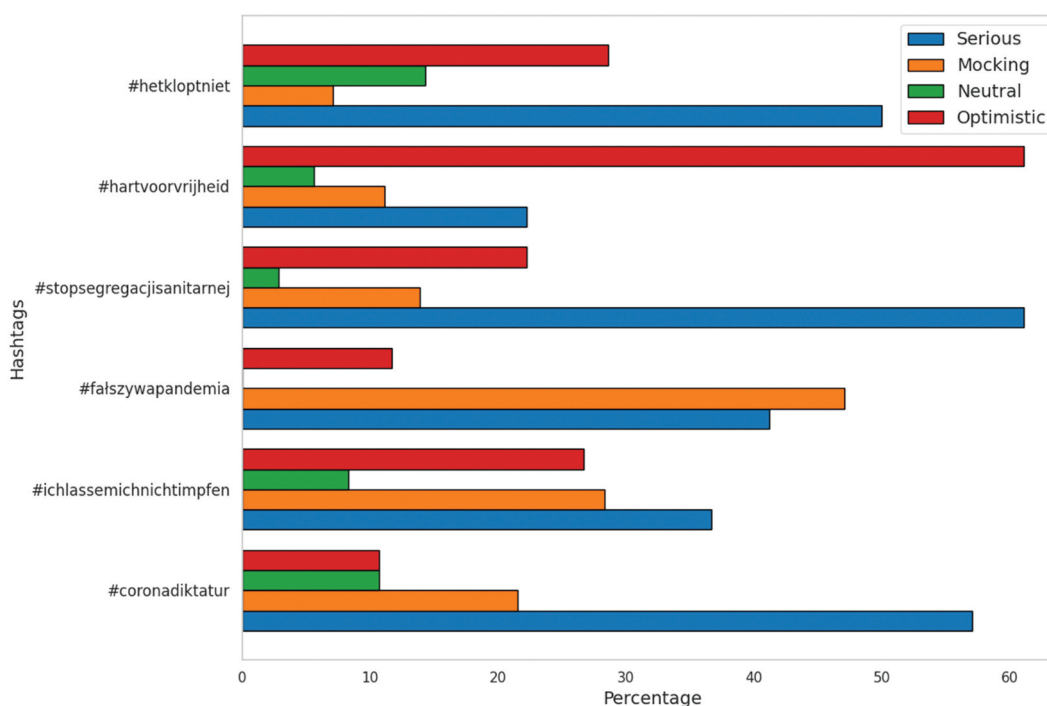


Figure 2. Tones of images for each hashtag.

expressing hope through protests against restrictive measures. As hashtags differ both between and within countries, the tone of images is hashtag and not culturally or country specific, allowing for targeted positioning and mobilization in the COVID-19 debate. The outcome aligns with the expectation that images characterized by an optimistic or neutral tone tend to exhibit lower levels of conflict, whereas images with higher levels of conflict, often marked by expressions of anger, outrage, or patronization.

Discussion

Research on political conflict tends to focus on newspaper framing or social media content, overlooking the increasingly relevant role of visual-based platforms for expressing political discontent. Instagram is still largely perceived as apolitical. The observation that visual platforms are primarily used for self-presentation and personalization rather than political content does not exclude their relevance for online political conflict research.

Our paper mainly dealt with the practicalities of doing visual research of political conflict on social media platforms and suggested possible forms of measurement. In particular, we discussed the difficulties of carrying out research on Instagram, of

getting a representative sample from the platform, and therefore the (im)possibility of doing a cross-country comparison. We explained this by using a small case study, illustrating how single hashtags portray very different dynamics of conflict. This variety of debates within hashtags has consequences for the possibility of carrying out national and cross-national studies.

In comparative politics, the question of representativeness of sampling choices applied to text sources, producers of texts and users/audiences has always been a controversial issue. In political conflict analysis, questions of sample representativeness encounter additional hurdles due to the dynamic aspects of conflict that can include various contestants with shifting audience attention over time across a variety of arenas. Instead of actors, it is more convenient to observe particular arenas of conflict, which in a cross-country analysis are commonly regarded as a national public sphere represented by particular types of media. In the case of social media contestation, this raises the fundamental problem that social media public spheres of national debates are no longer constituted by national media outlets, but the place of contestation is an international platform owned by global companies.

What are the spaces of contestation of national debates within a global social media space like Instagram? One obvious solution is to identify such spaces based on the use of language. Language selection is, however, difficult in the case of visual material, which more easily travels across linguistic boundaries. Social media spheres of contestation might also be of a plurilingual nature as activists more easily switch between languages or use English as default language. This phenomenon of plural language use is particularly common to so-called hashtag publics as a form of discursive network with often explicit language reference to English, such as #metoo, or #lockdown (Rambukkana, 2015). Hashtag publics are not representative of national publics in the traditional sense. They can be used as markers of a debate by a very heterogeneous group of participants, who sometimes identify with the cause and other times might also oppose it. The use of hashtags is not constant but in motion with shifting meanings and fluid boundaries of the corresponding online communities.

Our choice of including only national language-specific hashtags came at the cost of representativeness of the intensity of conflict, as English language hashtags were widely used by online contestants and were potentially much more influential in some countries. This made us conclude that some language communities are simply easier to represent than others. Whereas Polish users could be relatively safely located (they might still reside outside of Poland though and contribute to Polish debates), Dutch and German hashtags are also used in Flanders, Austria, or Switzerland. Claiming that we analyzed Dutch or German discontent about COVID would therefore be misleading; we rather analyzed COVID discontent posted by users of unknown origin in those languages.

To be able to say anything more meaningful about the representativeness of our sample of hashtags, we would either need to have more sociographic information about the publics that constitute them or more information about the type of content that became salient in national debates. As user-specific information is hard to get, we related our choice of hashtags to the intensity of the COVID-19 debate in a particular country. One indicator for this is the overall number of hashtags

that are used by contestants to position themselves in national debates. In the Netherlands and Germany, this number was sufficiently high to draw a meaningful sample following the ranking of the hashtags in terms of density of debate. In the case of Poland, our choices were more restricted as we found only relatively few contested hashtags in national debates. Before we can jump to the conclusion that COVID-19 was less contested in Poland, we however need to take into account that the low number of hashtags might simply reflect a different (nonpolitical) use of Instagram and that Polish population, which according to Eurobarometer is distinguished by lower levels of trust in government and science. Such discontent might have been expressed more through other channels. This aligns with previous studies that demonstrate a lower frequency of political communication on platforms like Twitter and Facebook in Eastern-European countries (Davidson & Enos, 2022).

Another “unresolved” sampling problem emerges in the form of retrospective data-gathering and the potential variation in content moderation by the same platform across countries. Retrospective data gathering is commonly discussed with respect to the problems of data removal, the closing down of personal accounts or changes of privacy (Chen, Sherren, Smit, & Lee, 2021). This is, in particular, a problem for political conflict research, as more controversial content tends to be removed more quickly from the platform. Whether conspiracy-related posts are more common in Germany compared to the Netherlands is, for example, difficult to measure as the German Instagram community might simply be less tolerant and faster to remove such content or different legislations against (online) hate speech or regulations with respect to disinformation apply in Germany (as, for instance, denials of the Holocaust).

Even if platforms are subject to the same regulation, the type of content that is removed can still differ considerably across countries. During the COVID-19 pandemic, the practice of content removal changed as much of the manual work done to remove such content due to health regulations could not be properly conducted on offline site and had to be replaced by automated

removals. This was at a time of the so-called “infodemic,” when platforms had to deal with large amounts of disinformation that users spread online during this time period. In some countries, Meta did not work together with native speaking fact-checkers, such as in the Netherlands. Varieties in content removals across countries, which are not transparent for researchers, can make country comparisons invalid, as in fact, one cannot find out whether online discourse varies due to culturally specific or simply different fact-checking practices. Researchers on social media conflict should therefore consider their data as representative for the online content that was available at the time of sampling, which is not necessarily congruent with how the dynamics of political conflict unfolded at the time of posting.

Comparing the two hashtags along the lines of actors, framing and tone forms a useful way to classify the degree of conflict in visuals. Our results show that hashtags can be highly specific and display their own degrees of conflict that cannot claim to be representative for the way COVID-19 online discussions are conducted within a specific country. This suggests some important lessons on the limitations of social media country comparisons as based on the analysis of hashtags. A single hashtag does not offer an accurate reflection of the general debate in a country but rather of the protest culture of a particular group of social media users. For future research on online political conflicts, there is a need to engage in a cross-hashtag analysis to learn about the dynamics of online contestation, especially when it comes to the use of visual content. Comparing such hashtags publics is a more fruitful avenue for research than the traditional design of cross-country comparison.

Note

1. The ranking was done using metadata provided by Instagram when using the search function for the hashtag on Instagram.

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