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**Article**

# The destructive force of nature and the constructive force of community: Social representations of the 2024 Valencia floods

Brigitte Nerlich\* and Rusi Jaspal\*\*

## Abstract

Extreme weather events, such as floods, are becoming more frequent and severe due to climate change and they now affect people in places that had not experienced them before. How do people cope with such events? How do they talk about them? Social scientists and linguists have studied the language, especially metaphors, used in relation to these events for some time. This study contributes to this tradition by comparing the social representations that emerged after devastating floods affected two Western European countries, Spain in 2024 and Germany in 2021. We find almost no change in overall framing of the floods. The Spanish floods, like the floods in Germany, were still framed as malevolent human or animal agents and natural forces leaving behind mud and mayhem. Social representations still portrayed people as helpless in the face of flooding. Alongside these still dominant social representations, a smaller set of metaphors mapped aspects of floods onto people (rather than the other way round), thus highlighting agency rather than the loss of it. This shifts the focus in social representations from the destructive force of nature onto the constructive force of communities. A question for ecolinguists interested in building resilience into linguistic and political responses to extreme floods remains: how can one talk about and prepare for what people in Germany and Spain still call “the unimaginable”?

**Keywords:** extreme weather events; floods; metaphor; social representations; Valencia

## 1. Introduction

Dramatic images of torrential floods that affected densely populated areas in and around Valencia in Spain circulated widely after 29 October 2024. These floods, just as those in

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\* University of Nottingham, UK. Email: [brigitte.nerlich@nottingham.ac.uk](mailto:brigitte.nerlich@nottingham.ac.uk)

\*\* University of Brighton, UK. Email: [rusi.jaspal@cantab.net](mailto:rusi.jaspal@cantab.net)

western Germany in June 2021, struck a rich and industrialised country where, hitherto, dominant social representations tended to construct climate change, and the extreme weather events exacerbated by it, as distant and affecting “others” (see Jaspal & Nerlich, 2014). In Spain, the floods killed at least 232 people (Ezzatvar & López-Gil, 2024; Actualización de datos del Gobierno de España, 2025), and in Germany, over 180 people died (Bundesregierung, 2025). In both cases, extreme event attribution research indicates that the floods were aggravated by climate change (World Weather Attribution, 2021, 2024).

The German and Spanish floods are just two examples of extreme weather events impacting people worldwide. Other prominent examples include, amongst many others, major flood disasters in Asia and the United States in 2025. We focus here on two comparable European countries — the 2021 and 2024 floods in Germany and Spain were the most devastating in Western Europe in recent years (see Charalampous et al., 2025).

After the Spanish floods, Friederike Otto, a world expert in attribution research asked why “Europe still hasn’t accepted the realities of extreme weather” (Otto, 2024). In this article, we show that the social and linguistic representations of two major European floods and other floods before them have essentially remained the same and we ask whether this may contribute to a reluctance to accept the realities of extreme weather.

After the German floods, Nerlich and Jaspal (2024) analysed the ways in which the floods and their aftermath were socially represented in the media, primarily through metaphors, and the implications of these representations for public understanding of extreme weather and climate change. Building on this research and related studies of the social and linguistic framing of extreme floods, this study examines:

- the processes of sense-making that were used at the intersection of personal experience, weather, climate, and politics in the context of the Valencia floods; and
- the broader implications of emerging social representations for public understanding of the increasingly evident reality of extreme weather events in Europe.

The study draws upon tenets of social representations theory (SRT), which examines how novelty is understood, thought about, and communicated, that is, how novelty becomes a social representation (Moscovici, 1984), as well as metaphor theory (Lakoff & Johnson, 1980). We first provide background information about the German and Spanish floods, followed by a review of research into social and media representations of floods, before explaining our theory, corpus, and analytical approach.

### ***1.1. The German floods in 2021***

After record-breaking precipitation, flash floods devastated parts of Germany, Belgium, and beyond on 14 and 15 July 2021, resulting in numerous fatalities and large socio-economic losses. To study the emerging social representations of this devastating event, Nerlich and

Jaspal (2024) combined thematic analysis with elements of SRT to analyse a corpus of articles from a national news magazine in Germany, *Der Spiegel*. They found that the floods were personified as a human enemy, a monster, or a wild beast and framed metaphorically as natural and mechanical forces, such as tsunamis, bulldozers, juggernauts, or steam/road rollers. They were also objectified through metonymy, whereby mud and debris (the outcome of the floods) came to represent the entire event. The mud metonymy of the floods also became a symbol for “dirty politics”. Politicians became associated with mud, which in turn tainted their politics through a chain of metonymies.

Floods, such as those in 2021, call for immediate attention and action, such as shovelling mud. However, they appear to elicit little long-term political attention and action in relation to climate change mitigation (Oxford Analytica, 2024). Nerlich and Jaspal (2024) claimed that the immediate focus on the extreme force of the floods and its muddy aftermath, as well as the weak political response, entrenched feelings of helplessness, insecurity, and mistrust, and diverted attention away from more systematic, long-term engagement with flood dangers in the context of climate change.

### **1.2. The Spanish floods in 2024**

On 29 October 2024, devastating flash floods hit eastern Spain, particularly the Valencia region, with the towns of Paiporta and Chiva being worst affected. They were the result of torrential rainfall caused by a high-altitude, low-pressure weather system, also called DANA or *Depresión Aislada en Niveles Altos* or *gota fría* or cold drop and resulted in at least 232 deaths overall, with 224 in the province of Valencia, seven in Castile-La Mancha, and one in Andalusia, as well as thousands of displaced people (Actualización de datos del Gobierno de España, 2025). Valencia received a year’s worth of rain in just eight hours, with some areas (e.g., Chiva) recording nearly 500 millimetres (20 inches) of rainfall in 8 hours (see Bernet, 2024).

The floods swept away vehicles, homes, and bridges, turning streets into rivers and causing extensive damage to infrastructure. Satellite imagery revealed the scale of the disaster, showing widespread flooding of urban and agricultural lands, as well as sediment-laden floodwaters filling the Turia river channel and L’Albufera coastal wetlands (see Earth Observatory, 2024). The floods are considered Spain’s deadliest in recent memory (see Bernet, 2024).

Climate experts suggest that the intensity of the rainfall may be linked to climate change, with warmer air holding more moisture and possible alterations in the jet stream contributing to extreme weather events (Science Media Centre, 2024). In a rapid analysis, climate scientists at World Weather Attribution estimated that the rainfall was about 12% heavier and twice as likely compared to the 1.3°C cooler preindustrial climate (see World Meteorological Association, 2024). Discontent over the institutional management of the floods and, especially, anger about perceived delays in issuing warnings led to widespread criticism of and protests against government officials, including the national and regional

governments as well as the King and Queen of Spain (BBC, 2024).

## 2. Social representations of flooding

So far there have been no social scientific or linguistic studies of the Valencia floods. However, there have been several empirical studies of social representations of other flood events. In their study of two coastal communities in Southern France, Bertoldo et al. (2021) found that interviewees anchored their perception of future coastal flood risk to previous fluvial flood experiences and that they used various argumentative strategies for attenuating risk. They expressed the view that “something must happen” for flood risk to be taken seriously.

Studies in French towns facing high risk of flooding found that interviewees erroneously perceived the risk to be minimal and low-priority (Bertoldo et al., 2020; Michel-Guillou & Meur-Ferec, 2017). Another study in a town in Southern France facing elevated flood risk found poor coastal flood risk awareness and limited knowledge of crisis management tools and systems (Durand et al., 2018). Harries (2008) conducted qualitative research in flood risk areas in England and found that interviewees exhibited a tendency to place their “ontological security” above their physical security. In other words, they preferred to think of their homes as safe, nature as a positive force, and society as competent in protecting individuals, all of which in turn limited action to mitigate against flood risk.

In response to the Valencia floods, commentators have called for better warning systems and clearer communication about flood risk (Wise, 2024), as well as better flood preparedness (Ezzatvar & López-Gil, 2024), and political attention to the climate emergency (Oxford Analytica, 2024). One study examined flood awareness in 926 school children in Valencia and showed that approximately half of the respondents believed that climate change was increasing flood damage, and that just over half believed that climate change would increase flood risk in the future (Morote & Olcina, 2024). After the 2024 floods, educators in Spain have now put flood awareness on the curriculum (Morote et al., 2025).

### 2.1. Media representations of flooding

There have also been analyses of media reporting of flooding, some of which has drawn upon SRT. This body of research generally shows the pitfalls of patterns of reporting. In her discussion of flood risk in Piemonte, Italy, Malatesta (2013) notes that places (and their people) may be involuntarily stigmatised, through their association with danger, when they are designated by the media as sites of disastrous events. Albrecht’s (2022) analysis of British media representations of the 2005 and 2015 floods in Britain showed that the government’s response to the floods was anchored to broader political events, such as government spending and European Union policies, essentially politicising and polarising

the debate on flooding.

In her analysis of media representations of flooding in Pakistan, Ali (2014) found that the media's portrayal of women as the helpless victims of flooding aroused sympathy in readers who in turn gave moral and material help to those affected but inadvertently reproduced gender stereotypes. Henrique and Tschakert (2019) show that the Brazilian media outlets tend to reproduce social representations of the political parties they support, generally framing flooding as a natural phenomenon that should be addressed through existing techno-managerial practices. They argue that such reporting limits the space and scope for public discussion and affirmative action to mitigate flood risk.

## ***2.2. Metaphors of flooding in the media***

Research over the last two decades that studies metaphors used to frame or conceptualise floods and how they in turn shape social representations has found a similar politicisation of flooding. For instance, Döring (2003, 2005, 2017) and Krauss and Rulfs (2003) studied media representations of the 1997 Oder flood and the 2002 Elbe flood and observed an interlacing of floods and politics, which was similarly observed in relation to the 2021 German floods that affected many rivers and creeks in Western Germany (Nerlich & Jaspal, 2024).

Trckova (2012) examined metaphors used in *The New York Times*, *The Guardian*, *The Globe*, and *Mail* to represent the 2004 Indian Ocean tsunami and 2005 Hurricane Katrina. She found that these events were depicted using conceptual or overarching metaphors of a flood as an animate being, a monster, or a warrior. She argued that “this puts the blame for the catastrophe on the natural phenomenon and hides social and historical factors contributing to the disaster” (p. 137). Similarly, Bošnjak and Trišić (2015) found that the Balkan floods of 2014 were conceptualised as a juggernaut too powerful for any mere mortal to resist. Metaphors used to conceptualise the floods foregrounded almost exclusively the qualities of the floods, possibly shifting the focus and, therefore, responsibility and blame from people and their ability to resist, mitigate, or prevent them to the unstoppable floods themselves (Bošnjak & Trišić, 2015).

Similarly, the 2021 German floods were objectified through what they leave behind: mud — in particular, mud as an implacable enemy and a destroyer of all that is personally and politically valuable (Nerlich & Jaspal, 2024). The immediate focus of the media was on the extreme force of the 2021 floods, on the one hand, and the weakness and “muddiness” of the political response, on the other.

## **3. Theory and method**

### ***3.1. Social representations and metaphor***

We see and act in the world through the lens of social or collective representations. These

representations emerge from and are shaped by linking what is new to what is old, what is unfamiliar to what is familiar, making the abstract concrete and associating ideas with persons. Mapping the old onto the new is a central function of metaphor, which itself is at the core of the formation and dissemination of social representations. To capture the emerging social representations of floods as one type of extreme weather event, we therefore used a combination of theory and method, namely social representations theory (SRT) and metaphor analysis, as a framework for understanding how social groups construct, share, communicate, and make “common” emerging knowledge about the world.

SRT (Moscovici, 1984) examines how novelty is understood, thought about, and communicated, that is, how novelty becomes a social representation. The theory points to two key social psychological processes involved in the formation of social representations:

- anchoring (the linking of novelty to things that are already known about); and
- objectification (how abstract ideas are transformed into “concrete” realities).

SRT describes three subprocesses of objectification:

- personification (the association of an idea with a person or persons);
- ontologisation (the attribution of an “ontology” to an abstract phenomenon so that it can be differentiated from other phenomena); and
- figuration (attaching ideas to mental images or metaphors).

This study draws upon the objectification tenet of SRT, particularly examining how metaphors were used to conceptualise the Spanish floods in the media. Metaphors and metonymies have been studied for centuries as figures of speech. During the 20<sup>th</sup> century, cognitive linguists began to examine them also as conceptual or cognitive tools that are used in thinking, talking, and acting in the world (Lakoff & Johnson, 1980; Radden & Kövecses, 1999).

So-called “conceptual metaphors”, such as ARGUMENTS ARE WAR (and their linguistic realisations, e.g., “He spearheaded the debate”), are seen as mappings across at least two conceptual domains: the conceptual source domain (e.g., war) and the conceptual target domain (e.g., arguments). These mappings are not arbitrary. Rather, they are grounded in our everyday experience of the body and the world we live in. They come from the social representations available to us and contribute to new social representations. In the case of extreme weather events, for example, we talk of weather “on steroids”, of a “baking” heat, of “monstrous” floods or “killer” droughts, expressions grounded in mapping what we know about baking, monsters, and killers onto weather events. In this article, we examine some of the conceptual metaphors that emerged in the aftermath of the Spanish floods, that is, how common experiences and common knowledge shape sense-making and action during disasters.

Metaphors map representations between source and target domains, normally mapping something concrete (what we know about humans or animals and their actions) onto something abstract or overwhelming (the causes and impacts of extreme events, such as floods or wildfires). Floods or wildfires are typically represented metaphorically as a “wild beast”, for example, “devouring” a town. Sometimes a salient topic of media discussion, such as a flood, can also trigger a reversal in such mappings exploiting the bidirectionality of some metaphorical mappings (see Goodblatt & Glicksohn, 2017). Silaški (2009) calls such metaphors “topic-triggered metaphors” in which the choice of a metaphorical source domain is triggered by some aspect of a target domain; for example, when journalists exploit aspects of “floods” to talk about “humans”. In our study, we found a variety of such “topic-triggered” metaphors which, unlike the dominant destructive metaphorical mapping, highlighted human agency, such as “a flood of volunteers”.

Whereas metaphors establish mappings between relatively distant conceptual domains, such as “love” and “journeys”, metonymies exploit spatial, temporal, causal, and similar relations between concepts, as when we map “hands” and what they do to “workers” in expressions like “all hands on deck”. In this article, we focus on mud, the causal outcome of floods, as a metonym, standing directly for the impacts of floods and their emotional aftermath, as well as, more indirectly, the impacts of climate change.

### **3.2. Generation of newspaper samples**

In this study, we sought to focus on the social representations of the Spanish floods disseminated to an international, English-speaking readership, i.e., beyond those circulating in the Spanish context. We searched the news database Nexis (on 12 November 2024) using the keywords “Valencia” AND “flood” between 8 October and 8 November 2024 for English newspapers covering news before the event, when warnings could have been issued, and sometime after the event, covering the aftermath.

This search gave us access to two small samples of Spanish news articles published by *El País* and *EFE* (a major Spanish-language multimedia news agency) in English. It also allowed us to generate a larger sample of articles published in *The Independent*, which was consistently the top major world newspaper reporting on the Spanish floods. There were 10 articles in the English-language publication of *El País*, 22 in *EFE*, and 103 in *The Independent*. In our analysis, we focused specifically on media reports that provided accounts of first-hand, lived experiences of the Spanish floods.

### **3.3. Analytical approach**

We used a social constructionist variant of qualitative thematic analysis, which is “a method for identifying, analysing and reporting patterns (themes) within data” (Braun & Clarke, 2006, p. 78). The method was used to identify emerging social representations of the

Spanish floods in 2024 and linguistic and rhetorical strategies used to construct and substantiate these representations.

Thematic analysis was used deductively through the theoretical lens of SRT (particularly the process of objectification) and of metaphor theory (particularly the grouping of metaphorical expressions into broader conceptual metaphors). Following the analytic steps outlined in Jaspal (2020), we began by reading and re-reading the news items in the corpus. During each reading, we noted initial observations that captured the essential qualities of the items, focusing on units of meaning, instances of anchoring and objectification, and linguistic and rhetorical strategies (e.g., metaphors, similes) used to construct meaning. We discussed our respective initial findings and emerging thematic patterns. These initial findings were then collated into preliminary themes which addressed the original research questions. Finally, the themes were arranged into a coherent narrative structure.

#### 4. Analysis and discussion

In this section, the following five themes and conceptual metaphors derived from the qualitative thematic analysis of the samples are discussed (as traditional in metaphor analysis, conceptual metaphors are formatted in small capitals):

**Theme 1:** The power of nature — personification and metaphors of destruction

- FLOODS ARE AGENTS; FLOODS ARE (OTHER) NATURAL FORCES

**Theme 2:** Flood and mud — objectification through metonymy and iconicity

- Mud is a symbol of destruction; Cars are a symbol of devastation

**Theme 3:** Flood, mud and politics

**Theme 4:** The power of community — topic-triggered metaphors of reconstruction

- HUMANS ARE WATER

**Theme 5:** Climate change — the imaginable and the unimaginable

##### 4.1. Theme 1: *The power of nature — personification and metaphors of destruction*

The most pervasive conceptual metaphor focused on the disastrous force of the flood and conceptualised the flood as an animate being or agent.

###### 4.1.1. FLOODS ARE AGENTS: *Thieves, monsters, and killers*

Talking about monstrous floods uses a very conventional if not invisible metaphor, which

is usually accompanied by epithets, such as devastating, catastrophic, apocalyptic, as well as violent and deadly. This metaphor constructs floods as agents that rip, sweep, hit, swallow, pile up, and take away people's lives and possessions, even toss them about like toys: "Muddy rivers swept away everything in their path — roads, houses and key infrastructure" (*The Independent*, 4 November). "The deadly floods left cars piled up like toys in streets, swallowed homes, and covered entire neighbourhoods in sludge and debris" (*ibid.*). "Cinthya Torres stands on the wreckage of her life, recounting the moment when rising waters swallowed her home and dreams" (*EFE*, 4 November). "'(The floodwaters) took away lots of dogs, lots of horses, they took away everything,' said Antonio Carmona, a construction worker." (*The Independent*, 30 October).

Just as during the German floods, the extreme force of the water took people by surprise and caused devastation. One survivor was "traumatized by her memories of the fury of the waves and the sound of 'doors exploding' from the water's force" (*The Independent*, 4 November). The river turned into a "roaring sea" with "waves" crashing into buildings and cars, turning staircases into waterfalls (see *El Pais*, 30 October): "What should have been a road was an ocean" (*The Independent*, 5 November).

There was one particularly salient metaphor in both the Spanish and UK coverage, namely that of the floods "trapping" people, which constructed the floods as hunters and killers. People were, of course, literally trapped: "With no time to react, people were trapped in vehicles, homes and businesses. Many died and thousands saw livelihoods shattered" (*The Independent*, 31 October). Homes and cars became "death traps" (*El Pais*, 4 November) and people felt "trapped in a nightmare" (*The Independent*, 31 October). There was the additional threat of water combined with cars: "the cars that were pulled along by the floods then blocked the sloped streets that would normally drain the rainfall, effectively trapping people in rising water" (*El Pais*, 1 November). Here the floods "use" cars to "trap people". Being and feeling trapped became a major issue, both literally and metaphorically.

The metaphor of floods as agents was further mobilised in the often-repeated phrase in the samples "trapped like rats", also used in a headline of an article in *The Independent* on 30 October. "Valencia's local mayor has said people in the region are 'trapped like rats' as the floods continue to hit the country." (*The Independent*, 30 October).

#### 4.1.2. FLOODS ARE (OTHER) NATURAL FORCES: *Tsunamis and waves*

While the 2021 German floods were sometimes conceptualised as natural forces, such as avalanches or tsunamis, the Spanish floods tended not to be framed in terms of avalanche metaphors, but the tsunami metaphor was common, especially as the floods occurred near the seashore. The destructive force of a tsunami was anchored to the phenomenon of an exceptional river flood. Two aspects of a tsunami were anchored to the Spanish floods: its immense wave sweeping over things and the destruction that it leaves behind.

People said that "It came like a wave, as if it were a tsunami" (*El Pais*, 1 November) and "I myself was on my way to check the river level because I had no information," Salom

said. “I went with the local police, but we had to turn back because a tsunami of water, mud, reeds and dirt was already entering the town.” (*The Independent*, 31 October).

Imagery of tsunamis was also mobilised to conceptualise the aftermath of the floods: “The aftermath looked eerily similar to the damage left by a strong hurricane or tsunami” (*The Independent*, 31 October). “The damage from the storm has recalled the aftermath of a tsunami, with survivors left to pick up the pieces as they mourn loved ones lost in Spain’s deadliest natural disaster in living memory” (*The Independent*, 1 November). “Survivors described the terrifying event to the Spanish newspaper *El Mundo* as [...] ‘worse’ than the ‘tsunami movie’” (*The Independent*, 5 November).

There was a significant metaphorical offshoot of the tsunami metaphor, namely that of the “wall of water”: “The tsunami-like wall of water claimed at least seven lives in Chiva” (*The Independent*, 3 November). It “produced walls of water that overflowed riverbanks, catching people unaware” (*ibid.*). “Walls of rushing water turned narrow streets into death traps and spawned rivers that ripped into the ground floors of homes and swept away cars, people and anything else in its path” (*The Independent*, 31 October).

When the waves and the walls of water receded, mud was all that was left, as a constant reminder of what had happened and, more significantly, as a social representation of the disaster.

## **4.2. Theme 2: Flood and mud — objectification through metonymy and iconicity**

In coverage of the floods, various “objects” came to objectify the uncontrollable floods, most importantly mud, the only aspect of the floods that could, with significant individual and collective effort, be controlled. During the floods, images of mud-covered piles of cars became iconic of the floods and indicative of their destruction.

### *4.2.1. Mud is a symbol of destruction*

On 1 November, *The Independent* quoted people saying, “There’s nothing left — just mud.” There was some reference to the mud being 30 centimetres deep and to the notion that the mud, sludge, and muck were ubiquitous: “Vast areas of land are seen covered in a brown swamp of muddy water after the torrential rainfall on Tuesday” (*The Independent*, 5 November). Moreover, “homes and businesses [were] buried under mud” (*EFE*, 5 November). Mud is a symbol, a metonymy, that stands for the destructive agency of the flood swamping, burying, entering, wrecking, and covering everything. Even when the water recedes, the mud and dirt stay behind as symbols of that malevolent agent.

The mud was constructed as appearing suddenly: “In the blink of an eye, the muddy water covered roads, railways and entered houses and businesses” (*The Independent*, 31 October). The mud was pervasive and all-consuming: “Wrecked vehicles, tree branches, downed power lines and household items all mired in a layer of mud covered the streets of Utiel” (*ibid.*). “Street after street in town after town is still covered with thick brown mud

and mounds of ruined belongings, clumps of rotting vegetation, and wrecked vehicles. A stench arises from the muck.” (*The Independent*, 5 November).

#### 4.2.2. *Cars are a symbol of devastation*

This annihilation by mud puts the fragility of modern civilisation and infrastructure into sharp relief, especially as it covered up cars that had been swept away by the muddy flood waters. Cars were described as tumbling, flowing, and floating through, or being strewn across streets in muddy rivers and as mangled and shoved together on top of each other in piles by the monstrous floods as the agents of that destruction. The floods were the agents; the cars, like the mud they were covered in, became the symbols of this agent’s power: “Floods of mud-coloured water tumbled vehicles down streets at frightening speeds. Pieces of wood swirled with household articles.” (*The Independent*, 29 October). “At every corner, cars are piled on top of one another or smashed into buildings, light poles, trees and bridge overpasses.” (*The Independent*, 4 November). A pervasive image was that of “Cars were piled on one another like fallen dominoes” (*The Independent*, 1 November) — a phrasing also evoking floods as agents.

Images showed emergency workers wading through mud-coloured waters to rescue people, animals and, most importantly, to search mud-covered cars and underground car parks where many were feared to be dead (*The Independent*, 31 October).

While muddy cars are not an uncommon sight after floods, the verbal and visual image of the cars piled up like dominoes was much more prevalent in Spain, both verbally and visually, than in Nerlich and Jaspal’s (2024) study of the German floods, where extensive mud slides were a more common talking point.

#### 4.3. *Theme 3: Flood, mud, and politics*

Alongside the verbal and visual images of mud, debris, and tumbling cars, the Valencia floods became famous for reports of the King and Queen of Spain being pelted with mud, of being “covered in mud and insults” (*El País*, 5 November). During the German floods of 2021, politicians had been berated for their slow response and it had been said that “mud sticks”, referring to the lasting impact on their social image and reputation. However, in the case of the Spanish floods, this was quite literal. When the King Felipe and Queen Letizia visited Valencia, mud was hurled at them together with abuse, as citizens vented their frustration and anger, but the “King stood his ground under a mud barrage” (*The Independent*, 5 November). This became an iconic moment:

The mud-sliding scene occurred as thousands more Spanish soldiers, national police officers, and Civil Guard gendarmes arrived, or are set to arrive, at the disaster sites. (*The Independent*, 3 November)

Bodyguards opened up their umbrellas to protect the royals and officials from the

mud raining down on them after being slung by grieving protestors. (ibid.)

Sticky brown globs hit Felipe on the face and all over his black jacket, while Queen Letizia's hands were streaked with the mud that, nearly a week after the floods, still coats street after street of the southern outskirts of Valencia city. Many in the crowd wielded the shovels they are using to dig out their homes. (*The Independent*, 5 November)

One newspaper headline asked, as was also the case in the German floods of 2021: “Will the mud stick? It is perilous for monarchy.” (*The Independent*, 5 November). This is when shovels and brooms turned from being symbols of help to symbols of anger: “Police on horses attempted to get the crowd under control, some wielding shovels and poles.” (*The Independent*, 3 November). There was also reference to “stick-wielding” vigilantes (ibid.), with another article noting that “The informally organised groups of stick-wielding locals are patrolling one of the worst-affected areas” (*The Independent*, 5 November).

As in the British floods of 2015, in which the rise of populism and Brexit contributed to the politicisation of the topic (Albrecht, 2022), here too there was a politicisation of disaster in a highly polarised political environment. As one headline proclaimed in *El País* on 5 November: “A far-right feeding frenzy in the swamp left behind by the Spanish flash floods,” evoking the mud metonymy.

#### **4.4. Theme 4: The power of community — topic-triggered metaphors of reconstruction**

In addition to the personification of the floods and their destructive impacts, humans themselves were constructed as agents in the floods, highlighting the power and value of community in coping efforts during environmental disasters. We refer to this as “reconstruction”:

Mud cakes her boots, splatters her leggings and the gloves holding her broom.  
Brown specks freckle her cheeks.

The mire covering Alicia Montero is the signature uniform of the impromptu army of volunteers who for a third day Friday shoveled and swept out the muck and debris that filled the small town of Chiva in Valencia after flash floods swept through the region. (*The Independent*, 1 November)

Volunteer helpers become an “army”, and brooms and shovels become weapons of the clean-up, but also, metonymically, representations of solidarity and help: “An impromptu army of volunteers were the first helpers on the ground.” This echoed that same metaphor widely used in other countries, such as in flood-prone Brisbane, Australia, where people set up what they called a “mud army” (Brisbane City Council, 2022).

Floods were conceptualised through mapping human or mechanical features onto

them to highlight their destructive and devastating force. Their impact was conceptualised through mud, piles of cars, debris, and destruction of infrastructure like roads, streets, and bridges. These metaphorical framings are associated with negative emotions.

However, there was also evidence of “topic-triggered” metaphors. This type of metaphors is triggered by a topic covered in the media (see Silaški, 2009), in this case floods, but reverses the metaphors mapping and emotional charge. Instead of mapping aspects of human agency onto floods, aspects of floods and water (source domain) were mapped onto human agency (target domain), thus highlighting rather than sidelining its power. Metaphors of destruction became metaphors of reconstruction and associated with positive rather than negative emotions.

#### 4.4.1. HUMANS ARE WATER

Aspects of water, such as waves of water and waves of sludge, that were frightening during the floods, become positive metaphors for help and assistance. There was reference to a big “wave of solidarity” (*EFE*, 4 November 2024) or “wave of citizen activism” (*El Pais*, 5 November). In coverage of the floods, the storm was said to “unleash its fury” (*The Independent*, 30 October), but in reference to the human response:

The tragedy has unleashed a wave of solidarity across Spain, with hundreds of residents arriving on foot in the worst affected areas, carrying water, essential products, shovels and brooms to help remove the mud. (*The Independent*, 1 November)

Ms Reece said there has been an outpouring of support from volunteers in the area, who have helped to clear away the thick layers of mud and debris that still cover houses, streets and roads. (*The Independent*, 5 November)

And whereas streets and highways and canals channelled the floods into cities (see *The Independent*, 4 November), now “social networks have channelled the needs of those affected” (*The Independent*, 1 November).

Water metaphors (waves, outpouring, channelling and flooding itself) were used to show the human spirit and capacity to cope and help one another. Moreover, brooms and shovels, the instruments used by these floods of volunteers, became symbols of solidarity. Later they became, as we have seen, symbols of protest and anger against the authorities.

Topic-triggered metaphors, such as the ones discussed here, are not unusual in times of crisis, but they are underexplored in research on media and social representations of extreme weather events, such as floods and wildfires.

#### 4.5. Theme 5: Climate change — the imaginable and the unimaginable

In discussions of the impacts of climate change on extreme weather, some interesting

metaphors for aspects of climate change itself rather than the floods have emerged. For some years now, climate scientists have used fingerprint metaphors which positions them as detectives investigating the imprint left by humans on nature (see Nerlich, 2018). The fingerprint metaphor was also used in coverage of the Spanish floods.

Friederike Otto was described as helping to “run World Weather Attribution that checks for human fingerprints in extreme weather, sometimes finding them, sometimes not” (*The Independent*, 30 October). Moreover, Hannah Cloke, professor of hydrology at the University of Reading, was quoted as stating more definitely: “This has the fingerprints of climate change on it.” (*The Independent*, 30 October). Other metaphors referred to “the self-harming effects of humans’ destruction of nature” (*The Independent*, 1 November) and of “Climate change ‘turbocharging’ extreme weather in Spain” (*The Independent*, 2 November), describing environmental harm in terms of human harm and extreme weather as a machine or racing car.

However, despite climate change being discussed more, those affected stressed their surprise at this extreme weather event, just as in Germany. The novelty of the floods was emphasised in coverage: “Spain has experienced similar autumn storms in recent years. Nothing, however, compared to the devastation over the last two days, which recalls floods in Germany and Belgium in 2021 in which 230 people were killed.” (*The Independent*, 31 October). Locals and meteorologists alike were taken by surprise (see *El País*, 1 November), as well as regional government officials (*The Independent*, 1 November).

“They didn’t have any idea of what was going on,” Pérez, a 56-year-old cleaner, said Thursday by phone from Barrio de la Torre in Valencia. “Everything is ruined. The people here, we have never seen anything like this.” (*The Independent*, 31 October)

“I have lived here all my life. This had never happened and nobody could have imagined it would,” Pons said. [...] “People were caught unaware by the sudden flooding which has turned their livelihoods upside down.” (*The Independent*, 2 November)

There are now plans to prepare and adapt the territory, particularly the Valencian Community, to the climate emergency that “unfortunately is particularly affecting our beloved Mediterranean Sea,” [Prime Minister Pedro] Sánchez stated. (*EFE*, 5 November)

Even in Germany, where several major floods have occurred since 2002, there appears to be a lack of crisis preparedness. However, unlike in Spain, there seems to be some societal failure to link extreme weather to climate change (Jacobsen, 2021). Krauss and Rulfs quoted from the *Süddeutsche Zeitung* as early as August 2002: “There is no doubt that what we are seeing today are the first consequences of global warming.” (*SZ* 13.8.02, translated from German). Yet, every time an extreme event occurs, there is surprise. The reality of

extreme weather events caused by climate change appears to be difficult to accept in some parts of Europe.

## 5. General discussion

Our qualitative thematic analysis of the samples of news reports on the Spanish floods revealed five key interrelated themes. There was a personification of the floods as agents, and they were also framed metaphorically in terms of natural and mechanical forces. The floods and their aftermath were objectified primarily in terms of mud and debris using a core metonymy. This was also strongly linked to the destruction of cars, symbolising modern civilisation and infrastructure.

There was an intertwining of the muddy floods with dirty politics as well as emerging feelings of loss of control and helplessness which were then manifested in anger and protest by people affected by the floods. This was part of a broader theme of coping through community action. We note the emergence of “topic-triggered metaphors” highlighting human agency rather than attributing agency to the floods and foregrounding the constructive force of community rather than the destructive force of flooding.

Some metaphors were used to attribute the floods to climate change. Despite these attributions, there was still general shock in relation to the flooding notwithstanding the growing frequency of extreme weather events in Europe and the evidence that this is indeed linked to anthropogenic climate change.

Overall, the results of our analysis suggest that two competing social representations of the Spanish floods are emerging: first, one of the agency and invincibility of the floods vis-à-vis the passivity and helplessness of people; and second, one of human coping with the floods in terms of political protest and community solidarity — and in the case of Spain some political awakening to the realities of climate change.

The floods were generally personified in terms of malevolent agents, namely thieves, monsters, and killers, and there was evidence of figuration in terms of natural factors, namely tsunamis and waves. This is a long-established form of objectifying flooding, as highlighted by Trckova’s (2012) study of the 2004 Indian Ocean tsunami and 2005 Hurricane Katrina, in which it was noted that “by demonizing nature, such a representation reinforces Western nature–culture dualism, puts the blame for the catastrophe on the natural phenomenon and hides social and historical factors contributing to the disaster” (p. 137; see also Bošnjak & Trišić, 2015). This constitutes a form of external attribution, whereby the agency of the floods is foregrounded vis-à-vis the passivity and helplessness of people, potentially inhibiting acknowledgement of the role of anthropogenic climate change and discussion of flood risk management (see Ezzatvar & López-Gil, 2024; Wise, 2024).

Furthermore, the floods and their aftermath were objectified through metonymy, in terms of mud, which was also observed in relation to the German floods in 2021 (Nerlich & Jaspal, 2024). Unlike polar bears, a distant metonym for climate change (O’Neill, 2022,

p. 1112), mud can be seen as gradually replacing that metonym and bringing climate change and extreme weather closer to people, in pictures, in words and in embodied reality. Almost anybody can be affected by floods and floods bring mud. Mud leaves marks on lives and landscape and is becoming a fingerprint left by climate change.

Muddy cars became icons of the floods, highlighting not only the devastation caused by the floods, which were sweeping away cars but also the fragility of modern civilisation and infrastructure. These metaphorical constructions foregrounded the loss of self-efficacy, that is, feelings of control and competence in the face of the devastation, thereby attenuating human agency and the capacity to cope. There was a focus upon the uncontrollability of the floods and the passivity of humans in the face of them.

Yet, later coverage of the floods did highlight some of the ways in which human beings were responding to, and coping with, the floods. In this article, we describe the concept of topic-triggered metaphors, whereby existing metaphors are used to evoke different emotions. For instance, while mud metaphors were originally used to construct the devastation of the flooding and to evoke the negative emotions of fear and helplessness, there was later evidence of their use to highlight political mobilisation and outcry, particularly against politicians and institutional figures, such as the King and Queen of Spain. This reflects the politicisation of the floods, focusing on politicians' management of the floods but not necessarily political engagement with the causal factor, namely anthropogenic climate change (see Albrecht, 2022; Henrique & Tschakert, 2019). The emotions of fear and helplessness were replaced by feelings of anger, using the same mud metaphor. Similarly, other metaphors using floods and water as a source rather than a target domain were later used to highlight the value of community, thereby replacing the negative emotions of fear and helplessness with those of hope and solidarity, thus facilitating coping.

Collectively, these metaphorical constructions tended to focus on the “here and now”, that is, on the floods themselves and their aftermath. There was some acknowledgement of the role of anthropogenic climate change in extreme weather events, including the Spanish floods, using the observed fingerprint metaphor. However, this appeared to constitute a factual observation, rather than a call for action. Indeed, the floods were framed in terms of a surprise event, just as they have been in relation to previous flood events (Nerlich & Jaspal, 2024). There is now considerable evidence that floods are increasingly affecting Europe. After the German floods, an article in a *Lancet* journal stated that these “events reveal that no one is immune to the kinds of weather events that are being exacerbated under climate change” (Editorial, 2021).

The floods in Spain have shown yet again that nobody is immune to extreme weather events. Despite some acknowledgement from the Spanish prime minister of the role of anthropogenic climate change in extreme weather events, disbelief and inertia persist, highlighting societal unwillingness to accept this reality. Participants in Bertoldo et al.'s (2021) study suggested that “something must happen” for flood risk to be taken seriously. This appears not to be the case despite the occurrence of extreme weather events. This could be attributed to the need for “ontological” security which is sometimes perilously

placed ahead of physical security — people want to believe that their environment is safe, even if this belief is inconsistent with the objective reality (Harries, 2008). Moreover, they generally resist the stigma of danger and risk in relation to their place identity (Malatesta, 2013). It is unlikely that the low levels of awareness and inaccurate risk perception in relation to flooding that have been observed in many high flood risk areas in Europe (e.g., Bertoldo et al., 2020; Durand et al., 2018; Morote & Olcina, 2024) will improve if the relationship between climate change and extreme weather is not fully acknowledged across Europe.

## 6. Conclusions

As demonstrated in research into flooding, social representations disseminated in the media can shape cognition, affect, and behaviour (Ali, 2014). They can either create or limit space for affirmative action in relation to floods and other crises (Henrique & Tschakert, 2019). Yet, they can also have unintended consequences as they are elaborated, redefined, and challenged. Social and linguistic representations of European floods have emerged over two decades, during a time when floods have become more frequent and extreme due to the general influence of climate change. By studying one of the most recent severe flooding events, the Spanish flood of 2024, and comparing it to the German flood of 2021, we wanted to find out whether changes in representations have occurred and what this means for the “acceptance” of extreme weather in Europe.

The results of our analysis suggest that, primarily through objectification (personification and figuration), a social representation of the agency and invincibility of the floods vis-à-vis the passivity and helplessness of people has become a stable representation. However, we also detected one slight shift in representation of human coping with the floods in terms of increasing political protest and community solidarity, as well as an emerging shift in political acknowledgement of climate change in the case of Spain.

The still dominant social representations focus almost exclusively on the qualities of the floods themselves and their aftermath rather than on the broader causal factors and role of human beings therein. Community solidarity is an important component of effective coping and wellbeing and must be encouraged. However, the emerging social representations are concerned primarily with dealing with the here and now of flooding. They reflect how people perceive the floods and their aftermath, as well as how they cope with these specific events. Neither social representation is explicitly linked to anthropogenic climate change or to flood risk mitigation.

Like German people, the Spanish still expressed astonishment about the occurrence of the floods, which were seen as “unimaginable”. This means that acceptance of the reality of extreme weather, and of climate change as a contributing factor, still remains low, which may hinder political investment in climate change adaptation and the building of community resilience in Europe. There are glimmers of change on the horizon though, as highlighted by metaphors of hope and political awakening in case of the Valencia floods.

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