PROLEGOMENA TO ANY FUTURE MEMETOLOGY

Towards an ontology & epistemology of memes

By Jay Luong (1-year MA)
Supervisor: Asya Passinsky, PhD

Submitted to Central European University
In partial fulfilment of the requirements for the degree of Master of Arts in Philosophy

Vienna, Austria

2022

AUTHOR'S DECLARATION

I, the undersigned, James Luong, candidate for the MA degree in Philosophy declare herewith that the present thesis is exclusively my own work, based on my research and only such external information as properly credited in notes and bibliography. I declare that no unidentified and illegitimate use was made of the work of others, and no part of the thesis infringes on any person's or institution's copyright. I also declare that no part of the thesis has been submitted in this form to any other institution of higher education for an academic degree.

Vienna, Austria

2022.05.30

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ABSTRACT

Memes are a form of digital content typically instantiated as static image macros (combinations of images and text) circulated on social media. Memes have been used to tell jokes, parody, influence elections (Diresta 2018), articulate lived experiences (Dahanayake 2018), challenge fiat currency, and instigate pointless debates, among countless other illocutionary purposes. Indeed, memes have enjoyed widespread adoption in myriad & disparate discourse communities on social media. From filmmaking to palaeontology, chess to urban planning (& more), memes have taken the world by storm. & yet, we still don't understand them. Or, worse, we take them to be the innocuous flotsam of public forums– mere epiphenomena to mainstream discourses that predate the Internet.

The objective of this thesis is to carry out an ontological & epistemological analysis of memes. Despite their cultural & political significance, memes have not been the subject of philosophical attention. It is my hope that the present work will motivate further philosophical study of memes & develop points of juncture between disparate philosophical subdisciplines (epistemology, philosophy of art). I will pursue these aims by developing the analysis of memes first, as art, & then, as speech:

II. **MEMETIC ONTOLOGY** I begin with an investigation into the ontology of memes *qua* works of art. I draw upon Wollheim's type/token framework (1968) from the philosophy of art in order to explicate the dual meanings present in the colloquial usage of the word «meme» & to build on preceding ontological accounts of memes (Evnine 2018, Vulliamy 2022). By the end, I will show that memes present a genuinely *sui generis* ontological puzzle.

III. **MEMETIC TESTIMONY** I draw on the notion of testimony in order to make sense of epistemic interactions involving memes. The resulting concept, memetic testimony, speaks to a largely unrecognised positive epistemic dimension of memes– how memes might be epistemically edifying.

IV. **MEMETIC FUTURES** I conclude by outlining future research directions.

ACKNOWLEDGEMENTS

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1.1 Meme magic
From URL to IRL

Memes are a form of digital content typically instantiated as static image macros (combinations of images and text) circulated on social media. Memes have been used to tell jokes, parody, influence elections (Diresta 2018), articulate lived experiences (Dahanayake 2018), challenge fiat currency, and instigate pointless debates, among countless other illocutionary purposes. Indeed, memes have enjoyed widespread adoption in myriad and disparate discourse communities on social media. From filmmaking to palaeontology, chess to urban planning (and more), memes have taken the world by storm.

And yet, we still don't understand them. Or, worse, we take them to be the innocuous flotsam of public forums– mere epiphenomena to mainstream discourses that predate the Internet. As it stands, there is a dearth of philosophical work on memes. But,
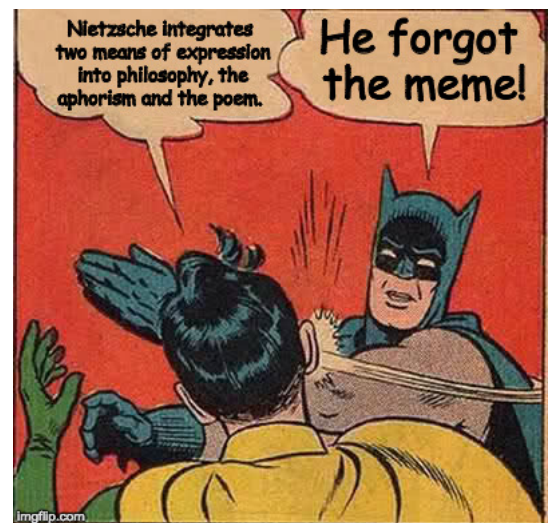
as recent history shows, turning a blind eye to the consequences of memes can have disastrous consequences. Within the past few years, memes have been embroiled in major political and cultural controversies.

In 2019, an investigation commissioned by a United States Senate committee discovered a coordinated international effort to influence the outcome of the 2016 US election (Diresta et al). The report traced many memes (e.g., *above left*) disseminated on various social media platforms over a period of 3 years to a Russian organisation called the Internet Research Agency, a «troll farm». In effect, the memes played a role in a propaganda campaign designed to exert political influence and worsen political tensions. While the IRA's activities would not come to public light until well into President Trump's administration, the unprecedented ubiquity of memes in political discourse on social media did not go unnoticed during election season. On the contrary, memes took centre stage. In the late

stages of the US election, speculation about the impact of memes reached a crescendo. On Oct 13, 2015, Donald Trump shared a meme of Pepe the Frog as himself (*above right*).

The political and cultural ramifications of memes are undeniable. But what can be said about the philosophical dimensions of the meme phenomenon? I suggest that, by turning the philosophical lens onto memes, we stand to gain a deeper and richer understanding of what memes are, what they can do, how they affect us, and how to live with memes. As a cultural phenomenon, memes raise numerous questions of philosophical interest:

· What are the epistemic consequences of memes? Given the ubiquity of memes, what might be our concerns regarding best epistemic practices in the online world?

· How is it that sometimes, one seems to learn something from memes? In what ways can memes teach us, and in what ways can they mislead us?

· Are memes art? Are they speech? To what extent can existing philosophical frameworks (e.g., of art, of language) help to make sense of the meme phenomenon? In what ways might memes differ from existing forms of art or speech, and, granted such differences, what would a philosophy of memes look like?
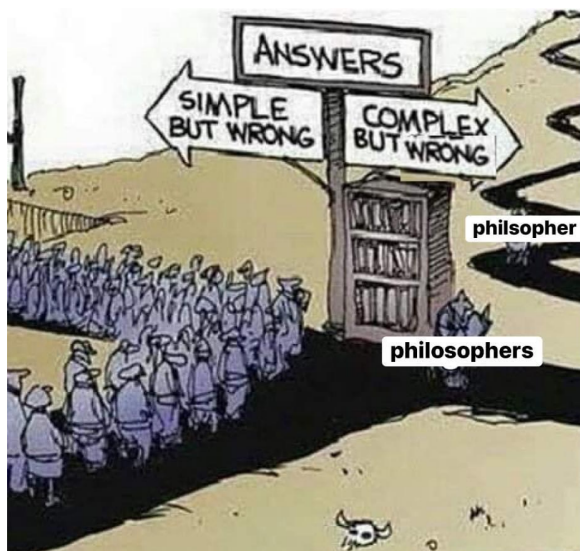
Questions such as these form the basis of a philosophy of memes. But first, what is a meme, exactly?

1.2 *Which* memes?
Image macros

The diversity of memes reflects the diversity of forms in which information can be transmitted on the Internet. In this thesis, I shall mostly be concerned with the most common variety of memes: the humble image macro (*right*, Schwan 2017),

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as found on Facebook (*above*: unknown source, ‹Evil Schopenhauer›). An image macro is a static (i.e., non-moving) combination of image and text. The vast majority of memes circulated on social media are image macros. This is because image macros are easy to create, circulate, and modify– making them the ideal format for memographic practice. The duality of image macros– their being composed of image and text– invites two kinds of analysis. In what follows, I elaborate on these approaches: memes as art and memes as speech.

1.3 How to approach memes?

1.31 Are memes art?

The process of meme-making and the interpretation of memes share features in common with the artistic process and the interpretation of art (Her & Zharova 2015). In the composition of a meme, the meme author takes into account the choice of images (and their cultural connotations), the meaning of the text, and the effects of juxtaposing these elements (Luong 2017). These same elements are (usually tacitly) taken into consideration by

audiences in coming to comprehend a meme. Williams and Razzore find little difference between the artistic merits of memes and mixed media art using found images:

> «[W]hat differentiates an Internet meme from the work of a modern artist like Barbara Kruger? Kruger's feminist collages frequently rely upon meaningful juxtapositions between borrowed photographs and short graphic texts; memes are very similar, in that they make meaning by combining existing images with words inserted later by a secondary viewer/creator.» (2015, 322-3)

Following other philosophers (Evnine 2018; Cross 2017; Vulliamy 2022), I shall treat memes as a form of art. For my purposes, it is not necessary that I conclusively establish that memes are a form of art. Rather, I think it suffices to briefly note that a case for memes as art can be made along various prevailing philosophical definitions of art (Adajian 2022):

· **Traditionalist** (or «functionalist») theories of art define art in terms of certain functions related to expressive, functional, and/or aesthetic properties. Indeed, there are many examples of memes fulfilling these functions. Memes are obviously used to express. Some memes induce aesthetic experiences. Still others challenge the very idea of a meme, for instance by subverting stylistic or structural conventions (*below*: third_eye_drops 2022, kinglovefist 2021).

- **Conventionalist** (or «proceduralist») definitions of art were motivated by the proliferation of artworks in the early 20ᵗʰ century which took it upon themselves to challenge existing artistic conventions– in effect, to explicitly subvert traditionalist theories of art (Weitz 1956). These theories of art find a more stable theoretical foundation in art's sociological or historical context: something is a work of art in virtue of its place in an «artworld» (a set of roles, norms, institutions; Danto 1964) or in virtue of its relation to some preceding canon (Levinson 1990).

  In this respect, too, we find many parallels in the meme phenomenon. Memes, too, evince a similarly playful nature (Her 2015). Memeticists have identified large-scale trends in meme aesthetics. Like the movements of art history (Her & Zharova 2015), they follow a broadly dialectical structure: the elements of one movement respond to the elements of a previous movement, often in a subversive manner. As a result, there is little in the way of either form or content that can be used to anchor a conceptual definition of memes. For this reason, philosophers of memes have looked to memographic practice as an indispensable basis for the conceptual analysis of memes (Evnine 2018, 305-6; Vulliamy 2022). I will shortly return to the idea of memographic practice (§1.41).

These correspondences constitute a strong *prima facie* case favouring the analysis of memes as works of art. But such an analysis alone cannot be the full picture. While certain analogies between memes and art can be supported, there are also important differences which ought to be registered. Notwithstanding the above parallels with Danto's artworld, it's not at all clear that meme communities predominantly engage with memes *as* art. In the first place, meme creators may not share quintessential artistic intentions. On the contrary, their ambitions are in most cases more humble: simply to amuse or to stir the pot. Furthermore, it is doubtful that the engagement with a meme typically involves a kind of aesthetic experience, to say even less of [art-]critical reflection.

1.32 Are memes speech?

While the artistic analysis of memes stands to shed light on the creative process of meme-making and their art-historical affinities, we might also be interested in

understanding how memes influence our beliefs (both in positive and in negative ways). To this end, meme communities might be better understood as a kind of linguistic community. This proposal receives initial support from the fact that image macros– the prototypical meme format and the focus of this thesis– just are combinations of image *and text*. Plausibly, meme creators use memes to say things. But that's not all– memes, like words can not only be used to say things, but also to *do* things.

In recent years, certain memes have been classified as hate speech on the basis of their adoption by groups espousing racist, antisemitic, or otherwise bigoted ideals. The most notorious of these was Pepe the Frog (*right*, Roy 2016). Originally a character invented by the webcomic artist. 3 years after his initial appearance in Matt Furie's webcomic Boys Club in 2005, Pepe's image began to be used as a kind of meme– a «reaction image»[1]– on the anonymous forum 4chan. Various iterations of Pepe proliferated, with different expressions, moods, and depicting him engaging in different activities. Before long, Pepe achieved popularity outside of 4chan. Years later, in the midst of the 2016 US presidential election campaign period, variants of Pepe began to appear depicting alt-right symbolism and imagery. In September 2016, the Anti-Defamation League added Pepe to their database of hate symbols, following a string of incidents where memes bled into reality (Hathaway 2016).

Facebook defines hate speech as «a direct attack against people– rather than concepts or institutions– on the basis of... protected characteristics: race, ethnicity, national origin, disability, religious affiliation, caste, sexual orientation, sex, gender identity and serious disease.» Indeed, there is much interest in controlling the dissemination of hate speech on social media (Kiela, Firooz, & Mohan 2005; Lee et al 2021).

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[1] An image that is used in order to express one's reaction, similar to an emoticon.

Central to the notion of hate speech is the idea that words don't simply describe the world, but sometimes, they actually do things to the world. In the case of hate speech, the contention is not only that words can sometimes bring about harmful consequences, but that in some cases they, *in and of themselves*, constitute harm to individuals (McGowan 2009, 389-90). «Speech *acts*»– and «acts *speak*»– so says Catherine McKinnon (1996, 22-3), whose examination of pornography as a form of hate speech starts by questioning the separation of speech from action.

Building on this, feminist philosophers have turned to speech act theory as a natural theoretical apparatus for the analysis of hate speech (MacKinnon 1996, 30-1,121; Langton 1993, 297). Drawing on concepts from Austin's framework, Langton characterises pornography as a kind of speech act. The very same concepts, I submit, can also be used to analyse usages of the Pepe meme as a kind of speech act.

	Definition	Pornography	Pepe the Frog
Locution	An utterance (whether said out loud or conveyed by other means; Austin 1962, 94)	The pornographic film itself (Langton 1993, 296)	An instance of Pepe
Illocutionary act	The intended action(s) that the utterance constitutes	Verdictive (ranking, valuing, placing) and exercitive (conferring or divesting of powers and rights) (Austin 1967, 152-6; Langton 1993,	Verdictive or exercitive (McGowan 2009, 392)
Perlocutionary force	The actual effects of the utterance, whether intended or unintended	Silencing women (Langton 1993, 327)	Normalising racist or otherwise bigoted ideas (Smith 2019, 316)
Felicity conditions	Criteria that must be met in order for the speech act to be successful	Pornographers are taken to be authorities regarding women's societal status (Langton 1993, 312)	Memes are taken to be innocuous.

The above points, I conclude, constitute a sufficient *prima facie* case for the treatment of memes as a form of speech. I will now turn to philosophical accounts of memes.

1.4 Philosophical perspectives

To date, very little philosophical attention has been paid to memes[2]. In this respect, Evnine's seminal essay *The Anonymity of a Murmur* (2018) provides a useful foundation for the further philosophical study of memes. Herein, I introduce his key concepts, and I identify the parts of his groundwork on which the present thesis builds.

Evnine calibrates his approach to the question «What is a meme?» by recognising that the kind of question posed («What is an *F*?») admits of both ontological and conceptual readings (idem). A conceptual reading asks for an analysis or a definition of an *F*, while an ontological reading simply asks which things fall under the category *F*. Evnine also notes that the word «meme» is used in two different ways in common parlance (idem, 312). The first sense– meme as «common content» ($meme_{CC}$)– refers to a set of norms that are shared across instances of a meme (idem, 306-7), some kind of overarching «thematic template» (*cf.* Cross 2017). The second sense– the meme instance ($meme_I$)– simply refers to the individual variations on a meme template (i.e., specific image macros). This is not unlike how the word «play» is ambiguous between a theatrical production («‹*Uncle Vanya*› *is my favourite play*») and its performances («*I'm going to see a play tonight*»):

$meme_{CC}$	$meme_I$
«The Pepe meme has been declared as a hate symbol.»	*«I sent you that meme.»*

Putting the two readings of the «What is an *F*?» question together with the two senses of meme yields four questions. Evnine's own responses are best understood as answers to the

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[2] As of 2022.01.16, a PhilPapers search for «*Internet memes*» with quotes turns up just 16 results. Searching for *Internet memes* without quotes turns up 1000+ results, but these include hits for just *Internet* and just *memes*. Similarly, searching for *memes* turns up many results, but the vast majority of these concern Dawkins' sense of meme.

question «What is a meme?» from different angles (Vulliamy 2022)– the initial outlines of a

theory of memes:

	memeCC Meme as common content (~meme types)	memeI Meme instance (~meme tokens)
Ontological What things that fall under *F* are	memeCC-Ont *«A meme is an abstract artefact made out of norms.»*	memeI-Ont Evnine refrains from giving an ontological account of meme instances because meme instances can take on various forms (e.g., images, actions, words, styles…), both digital as well as physical.
Conceptual A definition or analysis of the concept *F*	memeCC-Con *«M is a memeCC IFF M is made, as part of memographic practice, out of norms for producing things as part of that memographic*	memeI-Con *«M is a memeI IFF M is an instance of a memeCC.»*

In §2.1, I will extend the ontological characterisation of memeCC and memeI by drawing

on Wollheim's type/token framework from the ontology of art. For the present, I will focus

on conceptual accounts of memes. The conceptual definition of a meme instance (memeI-

Con) is secondary to that of a meme as common content (memeCC-Con; Evnine 2018, 315).

memeCC-Con, in turn, comes down to whatever memographic practice turns out to be.

1.41 It takes a village
Memographic practice

At present, all we have is a panoramic understanding of memographic practice.

Memographic practice goes over and beyond the mere consumption and production of

memes. Memographic practice spans «a meta-level of activity in which… image macros are

discussed, commented on, upvoted, downvoted, criticised, collected, replied to in kind,

and so on» (Evnine 2017, 305). Memographic practice is not monolithic. Just as there is no *one*

artworld for Danto, but rather many different artworlds, so too are there myriad

neighbouring, nested, and intersecting «memographic practices» (Evnine 2017, 305), any

number of which may be inhabited by a given individual at once (Cross 2017).

Much work remains to be done to characterise memographic practice beyond this very general vista. Vulliamy (2022) and Evnine (2022) identify 6 properties which are distinctive of memographic practice:

· *Use of images &/or text*: The prototypical form of the meme is the image macro (see §1.22).

· *Digitality*: Most memes₁ exist as files on computer systems.

· *Appropriation*: In most cases, memes₁ are made by exploiting existing media, much like found collage (Vulliamy 2022).

· *Anonymity*: Nearly all memes₁ bear no mark of authorship. The identity of a meme's creator is seldom known.

· *Ephemerality*: Memes are generally not made to arrest the attention or to be remembered (Vulliamy 2022).

· *Stylistically resembles other memes*: While a memetic aesthetic alone is not sufficient for something to be a meme (Evnine 2018, Vulliamy 2022), similarities in terms of form and content may well suffice to qualify otherwise borderline cases as memes (Vulliamy 2022).

These 6 properties are interrelated. For instance, it is in virtue of being digital objects that memes can be appropriated and that they exhibit an ephemeral nature.

1.5 Thesis & plan

At this point, I shall take stock. I began (§1.1) by first introducing memes by giving an overview of their cultural impact. I then specified (§1.2) the focus of my thesis– image macro-type memes. Afterward, I gave basic motivations for analysing memes as art (§1.31) and as speech (§1.32).

The objective of this thesis is to carry out an ontological and epistemological analysis of memes. Despite their cultural and political significance, memes have not been the subject of philosophical attention (§1.4). Yet, as shown by Frankfurt's study of bullshit (1986) and

Anderson and Lepore's examination of slurs (2013), the philosophical analysis of mundane concepts– those that we often take for granted– can be illuminating and transformative.

It is my hope that the present work will motivate further philosophical study of memes and develop points of juncture between disparate philosophical subdisciplines (epistemology, philosophy of art). Building off of §1.3, I will pursue these aims by developing the analysis of memes first, as art, and then, as speech:

II. **MEMETIC ONTOLOGY** I begin with an investigation into the ontology of memes *qua* works of art. I draw upon Wollheim's type/token framework (1968) from the philosophy of art in order to explicate the dual meanings present in the colloquial usage of the word «meme» and to build on preceding ontological accounts of memes (Evnine 2018, Vulliamy 2022). By contrasting memes with interpretive works of art, which exemplify a type/token ontology, I draw out significant differences between the mediums. These differences, which arise from the peculiar features of meme communities, strain the type/token distinction. I conclude that the ontology of memes requires a dedicated approach.

III. **MEMETIC TESTIMONY** I draw on the notion of testimony in order to make sense of epistemic interactions involving memes. The resulting concept, memetic testimony, speaks to a largely unrecognised positive epistemic dimension of memes– how memes might be epistemically edifying. I apply the concept of memetic testimony to 2 cases and anticipate an objection concerning testimonial justification.

IV. **MEMETIC FUTURES** I conclude by outlining future research directions.

II. Memetic Ontology

2.1 Forms of life, forms of art

*M*imêsis. Meme[1]. Imitation. Art imitates life– so says Plato (*Republic* 595a–608b). While Plato's preoccupation was moreso the cognitive merits of art, one might wonder whether his observation also applies to the various forms that art takes. The ontology of art is the metaphysical study of artistic objects, such as works of art (Currie 2011). At first glance, such pursuits may appear to be abstract theoretical trifles, far removed from ordinary concerns. But this initial impression could not be further from the truth. On the contrary, in studying the ontology of art, we are studying our forms of life with a focus on certain kinds of things that we create. And not just any things– but creations which command a special value in our lives. An ontology of artwork, then, tells us something about the kinds of things we make in the pursuit of beauty, truth, or simply for the sake of art itself.

Accordingly, the aim of the present investigation is to disclose the contours of our ways of relating to each other and to the world. In trying to understand what kind of objects works of art are, we are trying to understand to what exactly we are referring when we talk

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[1] Etymologically, «meme» derives from the Greek word *mimos* («μῖμος»; Lidell & Scott 1940), which means something close to imitation (Pappas 2020).

about artworks. We are also studying the way we talk about those things and the practices associated with them.


Memes provide an interesting focal point for such an investigation because of their rapid and extensive penetration into numerous cultural and political spheres (*above,* unknown source). In the course of their conquest, they have given rise to entirely novel modes of individual and collective expression and interrelation (Rigney 2010)– what Evnine and others have termed «memographic practice» (Evnine 2018, 305; Vulliamy 2022; §1.4). In this chapter, I demonstrate how the unconventional aspects of memographic practice give rise to significant ontological differences between memes and works of art in other mediums. In order to showcase these curious properties, let's revisit Pepe the Frog (§1.32). Pepe's birth as a meme is the story of the birth of all memes (Cross 2017, *italics mine*):

> «Initially, a user ‹seeds› the meme by posting some image or images online. Other users, in viewing these initial images, abstract a structure which they can continue in much the same way that one can continue a sequence of numbers once one has discerned a pattern in the initial sequence. In the case of Pepe, the meme likely began when a user on 4chan posted an image of Pepe saying ‹feels good man› as response to a request for justification of their behavior. Other users began using the image in similar ways. *It was at this point that the meme emerged as a pattern implicit in the activities of this community of users; competent users familiar with instances of the meme would be able to generate new instances consistent with the practices of the community.*»

Here we find the first peculiar feature of memes: what Evnine calls the meme instance (meme$_I$) *precedes* any common content (meme$_{CC}$) there might be (2018, 310). How is this possible? I will elaborate on this and two other noteworthy properties of memes in §2.4.

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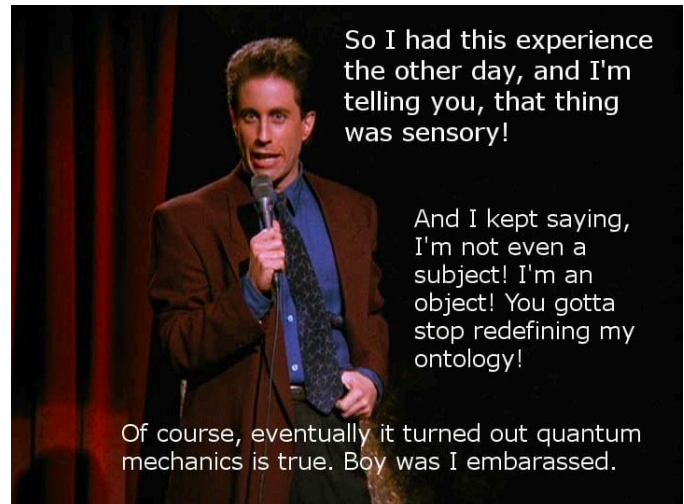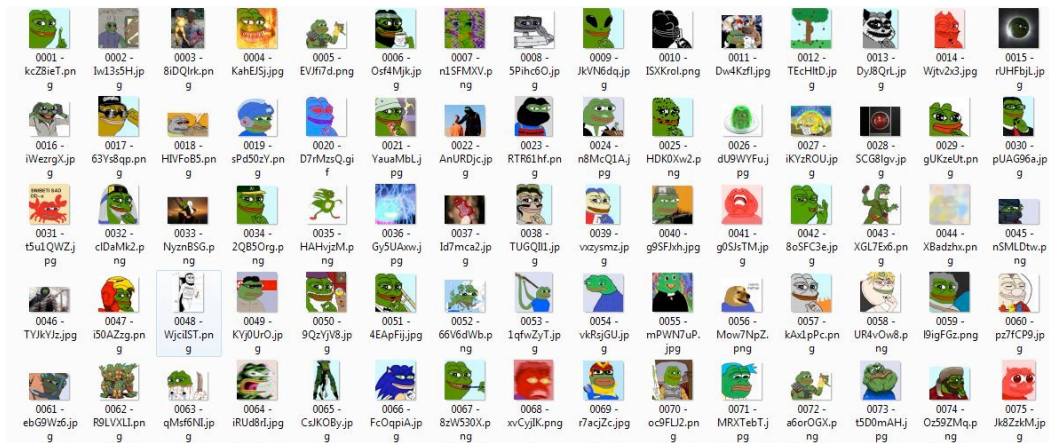
As variations of Pepe proliferated (*above;* ‹Rare Pepe Watermark›), he eventually found his

way into more mainstream memetic discourses (Perry 2014). Pepe's adoption by «normies»[2]

inspired resentment among his subaltern forebears (Cross 2017):

> «Members of the original communities out of which Pepe emerged took umbrage with
> the meme's new popularity and—likely out of a desire to troll mainstream internet
> users—began to associate Pepe with racist themes. Over time, their campaign worked.
> Pepe was taken up by white supremacists and those on the so-called ‹alt-right› on
> Twitter, Reddit, and other social networks.»

So began the war for the heart of Pepe (Kiberd 2015; Klee 2016; Swinyard 2019). In 2016, creator

Matt Furie launched a campaign, *#savepepe*, in order to reclaim Pepe from his alt-right

associations. Ultimately, however, Furie found himself powerless to turn the tide. Seven

months later, Furie killed off the character in a comic strip (*below left*; Romano 2017).

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[2] Derogatory term for casual Internet users.

And yet, Pepe *lived*. In 2019, Pepe took on a new status as an icon of hope for activists in Hong Kong protesting police brutality and proposed legislature that would enable China to extradite political dissenters (*above right*; AFP 2019; Ko 2019). Today, Pepe has mostly shed his political connotations, and continues to live on in many Internet circles (Marcobello 2022).

We sometimes speak of works of art as having a «life of their own» (Adorno 1963, 37; *cf.* Han 2017, 10-1). But nowhere else is this as true as in the case of memes. If Pepe has lived, Pepe has lived many lives. This marks a second puzzling feature of memes: no other kind of artwork has ever demonstrated this remarkable capacity to undergo shifts in the very core of its being (§2.42).

The intrinsic provisionality of memes itself leads to a third mystery– how meme usage can be rule-governed at all (§2.43). If memes are so radically open ended, as Cross says (2017), how can there be right and wrong ways to use a meme? After all, it is not the case that *anything goes* in the case of memes.

To be clear, I do not claim that each of the aforementioned features is entirely unique to memes. The uniqueness of memes rather consists in both their exhibiting all of these characteristics and the extent to which they exhibit these characteristics. In the next section, I turn to Wollheim's influential type/token distinction (1968) as a point of comparison between memes and existing art forms. Namely, I assess Wollheim's dichotomy as a means of building on existing work on memetic ontology (Cross 2017; Evnine 2018; Vulliamy 2021). Thinking of memes as types and tokens not only brings to the fore important similarities between memes and existing art forms, but also allows for connections to be drawn to the existing literature on the ontology of art. While Wollheim's distinction serves to clarify certain aspects of memetic ontology, its usefulness is limited by certain salient disanalogies between memes and interpretive arts (the paradigm use case for Wollheim's

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dichotomy). The specific ontological idiosyncrasies of memes thus warrant an independent investigation into their nature.

2.2 Wollheim on types & tokens

The diversity of artistic media raises interesting questions about what the identity of a work of art consists in. For some forms of art, the answer seems straightforward: Michelangelo's *David just is* that lump of marble– and nothing else (see, e.g., Fine 2003). But for other forms of art, such an identity theory raises more questions than it answers (Paul 2010; Currie 2011). Which is the physical object that is identical to a symphony or to a dance? If a play is a work of art, are individual productions of the play also works of art in the same sense? Is *MacBeth* simply just the sum total of all concrete realisations of *MacBeth*, or is there something more?

Wollheim's approach to such questions regards works of art in certain mediums as abstract **types** rather than physical objects (Wollheim 1968, 64-72). Such an artwork is an abstract structure, in that it is constituted by a set of generic relations between elements (idem, 50). This abstract structure can be concurrently and variously realised in concrete token instances. On this note, two points bear emphasis. Firstly, the kinds of things that we usually think of as types are human inventions with which we can correlate some set of instances (Wollheim 1968, 52): the Union Jack, Chianti, Brutalist architecture… Second, what distinguishes types from universals or classes are the intimate relations between types and tokens (1968, 50; Wolterstorff 1975, 121-2). This is evident from how we speak of types– as if they were themselves tokens (albeit of some distinction; Wetzel 2016). We say, with equal facility, that a performance is bombastic and that the symphony of which it is a realisation is bombastic (Wollheim 1968, 54; *nb.* Wolterstorff 1975, 122-3).

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Interpretive works of art (e.g., plays, songs, dances) exemplify this characterisation, although some non-interpretive works of art might also be plausibly construed as abstract types (e.g., novels). I will refer to artwork kinds that exhibit this ontological character as «work-types», as in, works that are types.

2.21 Artistic practices shape artistic ontology

The relationship between type and token is essentially hierarchical. The abstract structure of a work-type is inherently normative– the very same properties which constitute a work-type's identity also provide correctness conditions for something's being a token of that type (Wolterstorff 1975, 140; Cross 2017). From this it follows that tokens can be more or less well-formed instances of the type (Wolterstorff 1975, 129). Such discussions are variously framed in terms of the «faithfulness» or «authenticity» (Kivy 1995; Bicknell 2015, 54-80) of a token instance. This hierarchical relationship is most evident (but not unique to) those work-types which are accompanied by «**work-notations**» (Nanicelli 2011; Davies 2021). These formulaic representations of an artwork's abstract structure offer a public means of governing (along with other factors; Wolterstoff 1975, 139-41) whether something qualifies as an instance *of* a specific work (Cross 2017):

Work-type	Type	Token	Work-notation
Symphony			Score
Play	An abstract structure	A performance	Script
Dance			Choreography
Novel		A book	N/A

To be specific, the work-notation itself does *not* determine what it is to be a token of a given work. This is rather given by the abstract structure, of which the work-notation is a public representation. The work-notation merely provides epistemic access to the abstract structure. This follows from the non-identity of the abstract structure and work-notations: if I burn the only remaining script of Chekhov's *Uncle Vanya*, I have not destroyed *Uncle Vanya*– although it may now be impossible to realise any further productions of it (Wolterstorff 1975, 118-9; *cf.* Thomasson 2003, 273).

The presence of work-notations in some mediums but not others prompts questions about what exactly counts as a token. Consider two ways of doing poetry (Wolterstorff 1975, 118):

Work-type	Type	Token	Work-notation
Written poem	An abstract structure	A printed text	N/A
Spoken poem		A recital	A printed text

What this shows is that there can be no general theory of what it is to be a token (Wollheim 1968, 53). Different mediums are predicated upon distinct practices whose forms vary depending on the materials, methods, and technologies that they involve (idem, 56). These differences give rise to ontological contrasts between various mediums (Wolterstorff 1975, 116). For instance, we typically regard songs as types, performances as tokens, and sheet music as work-notations. Applying the same logic to novels would yield the result that novels are types, *readings* are tokens, and *books* are work-notations. This would not reflect the way we speak about novels– in common English parlance, books themselves are understood to be tokens of the novel types.

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But even the medium (itself a contested concept; Caroll 1996, 1-74) does not conclusively determine the ontological status of works within it. Arguably, total musical improvisations (i.e., those which are not merely improvisations on a theme) are neither types nor tokens (Wolterstorff 1975, 121; Hagberg 2000; Bertinetto 2012, 109). One cannot therefore specify which is the type and which is the token without making reference to the wider artistic context in which works are produced and understood (*cf.* Wack 2021).

2.3 Meme types & tokens

The case for a Wollheimian treatment of memes is motivated by three observations. First, like concertos and novels, memes are human inventions with which we can correlate some set of instances. Second, philosophers of memes have converged on the idea of memes as abstract. On Cross' account, memes in one sense are «abstract structures of a particular kind» (2017). Evnine, similarly, regards memes$_{CC}$ as abstract artefacts composed of– *inter alia*– thematic, affective, narratological, or aesthetic norms (2018, 307-9,315). Third, the semantic relation between type and token is at least as intimate in the case of memes if not moreso than it is in the case of concertos and novels. Not only can we naturally say both that a meme$_I$ and the corresponding meme$_{CC}$ are funny, but, moreover, the very same word «meme» is used to denote both these senses (Evnine 2018, 309-10).

Applying Wollheim's type/token dichotomy to memes, then, gets at something very close to Evnine's distinction between meme$_{CC}$ and meme$_I$ (ibid), and Cross' opposition between thematic templates and instances (2017). **Meme types** are abstract[3] templates for the generation of meme instances. Like songs or plays, meme types are abstract structures

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[3] Importantly, on this account meme types are not abstract owing to their digitality. Rather, meme types are abstract in the same sense as symphonies and novels– neither here nor there. Strictly speaking, meme types themselves are only digital insofar as digitality can be predicated of meme tokens (*cf.* Wollheim 1968, 54).

(ibid): a meme type consists in a set of generic relations between constituent elements (*below*; Her 2017).

3 TOKENS OF THE HOTLINE BLING MEME TYPE This meme type has a simple structure– it simply indicates a preference in the top-right panel and a dispreference in the bottom-right panel. (*Clockwise from top left*): a preference for pirating movies rather than paying for subscription services such as Netflix (Souza 2016); spotted at a protest against police brutality in Paris, November 2020 («stop police brutality»/«prohibit filming [acts of police brutality]»; miggaz_elquez 2020); a cat's preference to sleep on your keyboard instead of his own bed (Foster 2018).

But what are these constituent elements? Some memeticists take these constituent elements to be things that go into the composition of an image macro: images, narratological structures (Nacua 2018), font choice (Edwards 2015), filters (Matsakis 2017), etc. These elements need not be of equal importance in determining the identity of a meme,

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nor need their priority relative to other elements be held perfectly fixed through time. Others, however, take a more subtle analysis. As previously mentioned, Cross and Evnine take memes to be abstract objects made of norms. As concerns memes, the relevant norms are ways of using images, fonts, filters, etc. to inspire certain feelings or tell certain kinds of stories. This latter approach accommodates the vagueness of norms governing the proper usage of memes. This is best seen in the proliferation of Pepes (§2.1) and the resulting concept of «rare Pepes». Part of Pepe's success is due to users creating numerous different variations of Pepe– not being beholden to the original image. Users even developed a [facetious] notion of scarcity which would in turn motivate others to create their own Pepes (*below*, ‹Rare Pepe Watermark›).

Pepe, therefore, is not a specific image, but a visual likeness and a personality. This can be further explicated in terms of implicit norms– e.g., the usage of Pepe typically conveys some degree of self-deprecation and a shameless embrace of what is conventionally

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considered to be bizarre or ugly (Nagle 2016; Milligan 2019, 31). There is much more to say about the proper usage of memes– I will revisit this topic in §2.313.

As can be seen, Wollheim's type/token theory presents a promising framework for the ontological study of memes. In the first place, it gives an account of memes as social objects– thus situating philosophical work on memes in a well-developed literature. By the same stroke, it also affords connections and comparisons to the ontological study of other forms of art. In the next section, I undertake this task, turning up important differences between memes and other artwork kinds that are standardly analysed as types and tokens. Although this is not surprising (§2.21), it does underscore the need for a dedicated exploration of the ontology of memes– much like how the ontologies of music and film have spawned their own independent research programs (Levinson 1980; Sparshott 1988, 188-396; Wood 2001).

2.4 Memes beyond types & tokens

We are thus now in a place to revisit the three distinctive properties of memes I mentioned in the opening vignette about Pepe the Frog (§2.1):

1. ONTOLOGICAL PRIORITY: Meme tokens tend to chronologically precede the meme type.
2. RADICAL OPEN-ENDEDNESS: Meme types are able to undergo substantial changes in their core essences.
3. PARADOXICAL NORMATIVITY: Despite (2), meme usage is still rule-governed.

These features, I contend, cannot be accommodated within the theoretical resources of Wollheim's framework– which is at most a starting point for an art-philosophical investigation of memes.

2.41 Ontological priority

Which came first, the type or the token? This is often an ambiguous matter (Wollheim 1968, 53) that, at best, varies on a case-by-case basis. Perhaps sometimes a novel is finished when an author feels a sense of completion with the manuscript– thus, the type comes into [complete] being simultaneously with the first token. The question is even further complicated by improvisational forms of art (Bresnahan 2015), which have led some authors to reject the type/token framework in such cases (Hagberg 2000; Bertinetto 2012, 109).

In the case of memes, it does seem that there is a distinctive, although peculiar chronology: the token comes first (Cross 2017; Evnine 2018, 310,315-6). How can this be? How could a book precede a novel, or a song come into being not at the same time as, but *after* its first performance? A clue to this puzzle may be found in the convergence of memeticists. Giselinde Kuipers notes that «Like the jokes and stories of oral culture, Internet jokes have no authors (unless everyone is an author)» (2002). Simon Evnine says that memes are «art without artists» (2018, 311). What did they mean? Suppose that meme types are, after all, like interpretive works. If the creator of a song is a composer, who is the creator of a meme type? Here, another significant difference begins to emerge. In the case of memes, *individuals* produce tokens, while *communities* produce types. The first Pepe was but a token– Pepe the *meme* (which is not identical to Pepe the fictional character, Matt Furie's creation) did not exist until other users began to produce and use this likeness in accordance with emerging norms (§2.1; Cross 2017; Evnine 2018, 315).

2.42 Radical open-endedness

As previously elaborated, Wollheim's type/token framework entails a one-way direction of fit: tokens ought to conform to the type, but not vice versa. By contrast, the direction of fit between meme types and tokens is less straightforward, to say the least. This is first of

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all hinted by the conspicuous absence of memetic work-notations. Unlike in the case of music or drama (where scores and scripts are available), there are no recipes for meme-making (Cross 2017). Not even the progenitor tokens of a meme type need be prototypical, as can be seen by the unpredictable trajectory of Pepe the Frog. Were formulaic representations of the abstract structure of memes to exist, however, they might look like this: (Zharova 2018, *right*). This example does explicate and give instructions for how to create an instance of the *Hotline Bling* meme. But, far from being an instructive template for individual authors, this specimen serves no purpose other than to comment on the memographic practice itself (*cf.* Nacua 2018, Her 2018). This is not a work-notation– it is just another token, a self-referential anti-joke whose punchline is the formulaic structure of *Hotline Bling* memes (i.e., its own formulaic structure).

Of course, there exist other work-types which also lack work-notations. Novels, for instance, lack work-notations because they are not needed for the way that people usually interact with novels. Similar reasons underlie the absence of work notations in memes. Memes typically have a comedic intent (Vulliamy 2022). Barring professional comedy, we generally make jokes spontaneously and understand them intuitively. To explain and to deconstruct a joke is to do violence to it. Given the nature of the medium, it is thus unsurprising that there exist no work-notations.

The lack of work-notations in memes is notable because it reveals an instability at the very core of memes. In this respect, memes depart from novels and other work-types that also lack work-notations. With few exceptions, most work-types are static entities– sometimes even inviting Platonic analyses (e.g., Kivy 1983). It is one thing for a work's own

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abstract structure to be vague; it is another to allege that that structure literally undergoes changes over time. Certain popular adaptations may come to redefine the work itself. However, it is more plausible that what has been altered in such cases is merely the work's public veneer, rather than the intrinsic structure itself. Furthermore, even if some defensible examples of the latter could be furnished, they would amount to nothing more than an odd minority– far from a substantive counterexample to the present point. The fact that there are examples of covers being more widely known than their original versions does not establish that songs are intrinsically provisional artwork kinds.

On the other hand, it is well-known that memes are prone to undergoing profound and abrupt changes in form, content, and connotation in the course of their circulation on social media (§2.1). In doing so, they routinely subvert the hierarchy that is typical of Wollheim's dichotomy. In the case of memes, the token instances can, and often do push back– recursively altering the abstract structure. The war for the heart of Pepe was not just a war over Pepe's public image– it was a battle to decide what Pepe, essentially, stood for. Pepe was and is both competitively and collectively authored– by everybody from pop stars to white supremacists, from normies to the habitually online.

This exceeds Wollheim's predictions about the relationship between types and tokens. According to Wollheim, any property that can be predicated of a token can be predicated of the type (1968, 54). In the first place, this claim runs aground of obvious counterexamples (Wolterstorff 1975, 122-3). More importantly, however, it's clear that the way in which meme tokens reflexively change the meme type is more than just a case of the predicates of the token being true of the type. It's rather a matter of the type itself becoming something different than it was at a previous time– coming to possess properties which it did not erstwhile possess.

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Cross [2017] explicates this feedback effect in terms of the unparalleled **open-enededness** of memes as work-types. An interpretive work is open-ended to the extent that it permits interpreters to take creative liberties in executing an instance of a work. The notion of a cover accommodates the artistic license with which a musician can approach an existing song while still remaining a token of that song. An artwork that leaves little to no room for interpretation– one which provides strict conditions for tokenship– is *fixed*. As previously mentioned [§2.21], work-types are inherently normative. What's common across all work-types, including memes, is that the correctness conditions regulating tokenship are vague and circumstantially negotiated. What is exceptional in the case of memes is that the correctness conditions themselves are thoroughly provisional. But what makes memes so open-ended? Moreover, if memes really are so open-ended, how can there be any question at all about the proper and improper usage of memes?

2.43 Paradoxical normativity

Memes are remarkably open-ended, but this does not imply a corresponding degree of creative liberty on the part of the individual meme-maker. The creative avenues available to the individual meme-maker remain relatively rule-governed: they can only depart so much from the meme type at a given time while still producing a token of *that* meme. The real power to influence the meme type lies at the level of the community.

The open-enededness of memes is a result of their being collectively authored. Memes, as a medium, have a decisively participatory nature [Shifman 2014, 72-3; Milner 2016; Luong 2017]. It is in virtue of this participatory nature that memes are fundamentally open-ended. At the same time, it is by distributed tribunal (not any definitive template) that meme types regulate their token instances. What does this mean? While performing arts always involve a [more or less] clear distinction between the roles of the creator and the realisers (e.g., the

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playwright and the performers), there is no such differentiation when it comes to memes. In other words, there is no *creative hierarchy* when it comes to meme types. The meme type is emergently built up through the tokens that are produced and differentially circulated (Cross 2017). It arises from what subsequent meme authors converge on in producing their own iterations (ibid). The author of a progenitor meme is ultimately just one voice in the construction of a meme type: neither Matt Furie nor the individual who made the first Pepe meme hold any special auctorial privilege.

In this respect, memes bear an affinity to oral traditions– myths and folklore such as *Aesop's Fables*, *The Arabian Nights*, and the *Illiad* (Parry 1971; Toohey 1992). However, although oral traditions might also be collectively authored, there remain several key differences. Most importantly, as work-types, oral traditions are much less open-ended than memes. The transmission of folk tales is characterised by a continuity of both form as well as content: I have not retold the *Illiad* if I have only conveyed my own story in dactylic hexameter. It is unclear whether the same can be said of memes. This is because, as Evnine argues, what is at the core of memes is not any particular content but simply ways of using images and text (Evnine 2018, 307-9). Of course, in most cases, there *is* a strong continuity of images used. However, even this is not necessary, as can be seen in the proliferation of Pepe tokens. This is evident in the ethos of meme-making. As Vulliamy observes (2021), memes are rarely made to be remembered. Even when a meme token «goes viral», and is shared many times over, there is no pretension of achieving a place in some canon of meme tokens. The memetic canon, if there is such a thing, is a canon of meme types– not tokens. and the types are individuated by nothing other than the norms that constitute them (Cross 2017, Evnine 2017, 313).

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2.5 Forms of memeing, forms of memes
How memographic practice shapes memetic ontology

As in other areas of philosophy, few things are certain in the ontology of art. That said, philosophers seem to have achieved a consensus on two issues. Firstly, it is widely recognised that works of art differ in their ontological character. Paintings and drawings seem most amenable to material constitution accounts, while songs and dramas seem more like types. Yet even within the latter sort of artwork kinds– what I have called work-types– there is tremendous diversity. Some work-types have work-notations, while others don't. Sometimes, a token of a poem is a written text, while at other times, it is a recital.

What makes each work-type unique? It is in this regard that we find the second point of consensus in the ontology of art. Philosophers tend to agree that the unique ontological character of different work-types arises from our many practices and forms of life. The innocuously simple term «art» encompasses an exceedingly (and inherently) heterogeneous body of diverse methods, materials, technologies, and histories. As such, it is not at all surprising that we would observe differences between the ontological character of different artwork kinds (§2.21).

This is no different in the case of memes. Like other artwork kinds, memes present certain ontologically puzzling features– here, I have discussed ontological priority, radical open-endedness, and paradoxical normativity (§2.4). Each of these features are the result of the unique ways in which people interact with each other using memes– in other words, *memographic practice* (Evnine 2018, 305). The idiosyncrasies of meme communities and memographic practice underlie the ontological differences between memes and other forms of art. If we are to understand memes, we must look to meme communities and memographic practice. This is not only true in the case of memetic ontology. As I will

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show in the next section, the consequences of memographic practice also extend to

memetic epistemology.

III. Memetic Epistemology

3.1 Is a memetic epistemology possible?

O ught implies can: just as in ethics, our responsibilities as cognisers are circumscribed by our cognitive capacities. Technology, being a salient way of extending our cognitive capacities (Russell 1959, 91; Clark & Chalmers 1998; Goldman 1999, 161-5), thus becomes of prime interest to epistemology. A memetic epistemology is not only possible, but necessary. The Internet presents numerous epistemically novel situations (Goldman 1999)– among them the unique epistemic challenges posed by memes. From the effects of search engine personalisation (Goldman 2008; Simpson 2012; Miller & Record 2013) to the rise of automated Wikipedia editors (de Laat 2015), the modern Internet user faces various epistemic challenges that lack any «IRL»[1] parallel (Miller & Record 2016, 1947; Lynch 2017; Smart 2018). Perhaps many of these issues can ultimately be explained in terms of more worldly epistemic problems. Even so, the question would remain: *are our current epistemic strategies well-equipped for the online world?*

In this chapter, I argue that the specific challenges provided by memes not only demand new solutions but also necessitate revisions to our «offline» epistemology. I will develop

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[1] Acronym for «in real life».

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and defend a notion of memetic testimony in order to characterise the unique ways in which we gain knowledge through memes. In the preceding chapter, I argued that memetic ontology cannot be understood without reference to memographic practice. Many of the ontological idiosyncrasies of memes arise from the unique features of meme communities. In the same way, a proper understanding of memetic testimony will invariably require recourse to the notion of an epistemic community. This, however, is nothing new. The notion of an epistemic community (Zollman 2011, 338 & 2013; Vähämaa 2013; Reijula & Kuorikoski 2019) or a «knowledge economy» (Greco 2016) has been previously discussed in non-virtual contexts (see also Assiter 2000, Anderson 2012). Having outlined the social epistemological foundation for the present chapter, I shall now turn to introducing testimony.

3.2 Testimony

Testimony, in the most general sense, refers to a kind of process by which we gain knowledge from other people on the basis of[2] what they say (Green 2021; Leonard 2021). In what follows, I introduce two central philosophical issues of testimony:

1. *Is testimony a matter of transmission or generation of knowledge?*
2. *What is needed for a testimonial belief to be justified– and hence, to be able to qualify as knowledge?*

3.21 Transmission vs. generation

The orthodox view construes testimony as a kind of **transmission** that occurs between two parties: a speaker and an audience. The speaker possesses an epistemic good, which they can pass to an audience much like how a coin can change hands (*cf.* Lackey 1999, 471). Of course, unlike this coin metaphor, the difference is that the speaker remains in possession

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[2] One comes to hold a testimonial belief in virtue of what the speaker has said, not merely by observing what they say. If you attest, in a baritone voice, that you have a baritone voice, it is not the content of what you said but the way that you said it which primarily leads me to believe that you have a baritone voice (Audi 1997, 420).

of the epistemic good even after having passed it on. Transmission theories of testimony answer to the intuition that the speaker's own knowledge state sets an upper bound for what an audience might gain from testimony (Gelfert 2018).

By contrast, recent **generative** models of testimony (Lackey 1999; Greco 2016) reject this object-based paradigm (Zagzebski 2001, 247; Elgin 2006, 200) in favour of a novel analysis of testimony. On these latter views, an audience *can* come to know that *P* on the basis of a speaker's attestation even if the speaker does not have knowledge that *P*. This can be so if the speaker asserts *P* without believing it (Lackey 2008, 48-53; Graham 2006), or if they believe that *P* and assert *P* but lack justification (Goldberg 2005). Generative views of testimony dissociate the epistemic roles of knower and testifier: one can be a reliable knower, but a poor testifier, or fail to know yet succeed at giving testimony (Lackey 2008, 37-72). As such, generative theories of testimony accommodate cases where defeaters intuitively seem to be non-transmissible (Lackey 1999; Gelfert 2018).

3.22 Reductionism vs. non-reductionism

The issue of testimonial justification concerns what it takes for a true belief acquired on the basis of a locution to be able to qualify as knowledge. In this regard, there are two opposed camps (reductionism vs. non-reductionism), within which can be distinguished positions of increasing extremity (local vs. global). According to **reductionists**, testimonial justification requires that the audience has *positive independent (non-testimonial) grounds* for believing in the reliability of the testimony (Hume 1748, §10, at 74). This might consist in, for instance, my memory that the last time you reported to me that it was raining, you were right. This would be an example of *local reductionism*– the view that testimony is justified in case these the audience has positive independent grounds for believing in the reliability of the specific report (Fricker 1995, 404). Alternatively, one might think that something stronger

is required. *Global reductionists* hold that testimony is justified in case the audience has positive independent grounds for believing in the reliability of the process of testimony (i.e., testimony as an epistemic source; Coady 1992, 82; *cf.* Gelfert 2010). This sort of view reduces testimonial justification to a matter of perceptual, rational, phenomenal, and/or memorial justification (Leonard 2021); there is nothing special about testimonial justification.

Against both of these factions, **non-reductionists** hold that testimony is justified just in case the audience lacks any reason to doubt the reliability of the testimony (Reid *IE* 1764, chpt. 6, §24, at 96); Burge 1993, 472). This does not mean that there must be no defeaters whatsoever. If there are any, it is enough that they are accounted for (Lackey 2006a, 4-5)– but beyond that, nothing else in the way of positive independent grounds for believing in the reliability of the speaker (local non-reductionism) or of the process of testimony (global non-reductionism) is needed. As such, non-reductionism *simpliciter* necessarily imposes weaker demands on testimonial justification than reductionism *simpliciter* (Lackey 2006b, 163; Gelfert 2018). Accordingly, the local non-reductionist, but not the local reductionist, would grant that testimonial beliefs gained on the basis of assertions from a complete stranger are justified even when there are no positive non-testimonial grounds to believe in their reliability, so long as no undefeated defeaters are known to the audience (*mutatis mutandis* for global reductionism/non-reductionism).

Testimonial justification requires...	Reductionism *... positive non-testimonial grounds for believing in the reliability of...*	Non-reductionism *... the absence of any reason to doubt the reliability of...*
Local *... the speaker.*	Local reductionism	Local non-reductionism
Global *... the process of testimony.*	Global reductionism	Global non-reductionism

The reductionist and non-reductionist positions are motivated by different intuitions regarding testimonial justification. Reductionism is above all compelled by the worry that non-reductionist justification permits audiences to be irrationally gullible (Fricker 1994, 127-8; Lackey 2006b, 179): if testimony is only justified by presumptive but defeasible right (Fricker 1994, 125), then it would seem that all manner of dubious speech would qualify as testimonial knowledge. On the other hand, non-reductionism aims to accommodate the impression that much of our knowledge is gained through testimony (Coady 1992, 82; Fricker 1995, 401-4; Insole 2000, 44): too restrictive a requirement on testimony would yield the unhappy result that we have very little in the way of testimonial knowledge, and that entire domains of specialised knowledge (e.g., historical, technical) would simply be rendered unattainable.

3.3 Memetic testimony

Undoubtedly, there are many ways to carve up the main issues in the philosophy of testimony. For instance, certain mixed theories of justification may not fit neatly on the spectrum between reductionism and non-reductionism (e.g., Lackey's dualistic distinction between speaker testimony and hearer testimony; 2006, 178-9; 2008, 176-95; *cf.* Faulkner 2000, 586-7). Nonetheless, my aim was to sketch a topography of the main debates in testimony as they are typically construed. To this end, what matters most is that the picture I have presented captures most philosophers' views. The results of this reconnaissance offer specific points of connection for my introduction of memetic testimony.

It is my view that testimony offers the most compelling account of how we attain memetic belief and knowledge. This is because the way in which memetic belief and knowledge is attained exhibits general features thought to be central to testimony. When

we acquire memetic beliefs and knowledge, we acquire them (1) from other people (2) on the basis of the memes that they produce and share (their memetic locutions– see §1.32). As I shall argue, the epistemic analysis of memetic beliefs involves the very same factors that are implicated in the analysis of testimonial beliefs.

But is memetic testimony a matter of transmission or of generation? Under what circumstances are beliefs gained from memetic testimony justified– if ever? I shall undertake each of these questions in turn. I will go about this by presenting and discussing two examples of memetic testimony which each fulfil *local reductionist* standards– cases (1) and (2) below:

		The acquisition of testimonial knowledge...	
		Transmission ... requires, *inter alia*, that the speaker knows that *P*.	Generative ... does *not* require that the speaker knows that *P*.
Testimony is justified just in case...	Local reductionism ... the audience has *positive non-testimonial reasons* for believing in the reliability of the <u>speaker</u>.	1	2
	Local non-reductionism ... the audience *lacks* any reason to doubt the reliability of the speaker	3	4

Before proceeding, some methodological points bear emphasis:

· Given that the main obstacles for memetic testimony concern whether or not it can be accommodated within the standard philosophical framework of testimony, I shall above all be concerned with whether testimony is a matter of transmission or generation and what exactly testimonial justification consists in. In order to focus on these issues, I shall provide examples where the content of testimony is true, and determine whether, this being the case, memetic testimony can be analysed as testimony.

· These two issues (transmission vs. generation, reductionism vs. non-reductionism) are conceptually independent of each other. Endorsing either transmission or generation does not entail a commitment to either reductionism or non-reductionism. For this reason, I shall treat each issue in turn, apart from the other.

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· Why local reductionist standards? In the first place, global reductionism and non-reductionism are regarded by many to be untenable because they run aground of the aforementioned (§3.2) issues of, respectively, scepticism about testimonial knowledge (Coady 1973, 154-5; Fricker 1995, 401-4; Gelfert 2018) and irrational gullibility (Fricker 1994). In any case, such worries are not specific to my project. The case can be made for or against global stances on justification entirely without reference to memetic testimony (or any other subtype of testimony for that matter; Fricker 1994, 134,136). Herein, I undertake to defend only those aspects which are unique to memetic testimony. Secondly, as previously mentioned (§3.22), reductionism of any sort entails a stronger justificatory burden than non-reductionism of any sort (Gelfert 2018). It therefore follows that any example that passes muster on the local reductionist account also satisfies, *a fortiori*, local and global non-reductionist standards.

With that said, I shall now present the examples of memetic testimony.

3.31 The queen & the drone

Scientific Methodposting is a Facebook group of 35,600 members where memes with a broadly scientific content are shared. Many of the memes are moderately technical in subject matter– hitting a sweet spot between esotericity and intuitiveness. In this example (‹BEE›; below, Anugrah 2021), a participant has shared a meme where a queen bee character propositions a worker bee:

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The testimonial implicature here is:

> *S.* Reproduction in bees is a suicidal act for the drone.

As it happens, the meme (‹BEE›) *does* make a true claim about the mating behaviour of honeybees. At the moment of climax, the drone's endophallus is shot into the queen's reproductive tract. The force of ejaculation causes the abdomen of the drone to rupture, killing the drone (Hadley 2020).

Specifics aside, suppose after encountering BEE I form the belief that *S.* I form this belief on the basis of having come across BEE while scrolling on my phone. Is my belief that *S* justified? In this case, local reductionism requires positive independent grounds for the reliability of the claim that *S.* To this end, we might start by noting the fact that the post has attracted over a thousand reacts, the majority «haha» (😄) reacts. I might infer from this that there *is* something to the content of the meme after all– that a biologist such as «Audrey» would find this meme funny.

On what basis is such an inference justified? Memes in such contexts function as **inside jokes**. Inside jokes are a kind of humour which exploit an epistemic disparity between individuals among an audience (Hurley, Dennett, & Adams 2011, 267): you either get it or you don't. For instance (*below*: unknown sources; *cf.* Moore 1925):
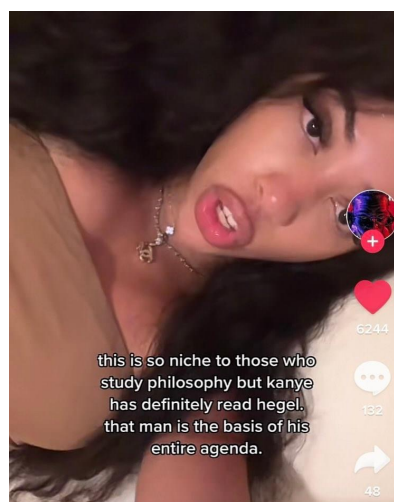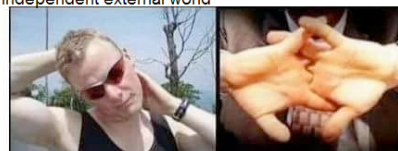
Inside jokes serve an important social function: to reinforce an ingroup/outgroup distinction (*cf.* Yus 2019). But they can only fulfil this function by striking a delicate balance between esotericity and intuitiveness. The success of an inside-joke is determined by the complexity of the content it can convey while still remaining *just out of grasp* of unwitting members of the audience (Hurley, Dennett, & Adams 2011, 267). Thus, humour is correlated with cognitive content.

Indeed, much of the meme culture in *Scientific Methodposting* and other related groups in the Academebook network on Facebook (Zharova 2021) is characterised by this kind of humour. But this need not be the only source of support for my belief that *S*. Having long lurked in these corners of Facebook, I may well have come across other memes which are similarly technical in content. Perhaps I have even corroborated some of these by checking them against independent sources (e.g., Hadley 2020 & Moore 1925 for the previous examples). Thus I would have at least two separate inferential (positive, non-testimonial) grounds for believing in the reliability of BEE: (1) the inference from inside-jokes and (2) my induction from previous independent corroboration. Of course, such a case is far from conclusive– but when is justification ever really conclusive? What matters here is that a defensible, though not bulletproof case can be made for local reductionist testimonial justification in this example of memetic testimony.

We may now turn to the matter of transmission and generation. Given the academic nature of the group, it is entirely possible that the person who posted BEE knows that *S*. This would qualify the present example as an instance of testimonial transmission. But perhaps they didn't– scrolling up, you come across another meme (Warren 2021):

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When you're dumb as hell, dropped out of high school, have done nothing with your life, and have absolutely no knowledge of science whatsoever, but you joined a Facebook group called "Scientific Methodposting"

You know, I'm something of a scientist myself.
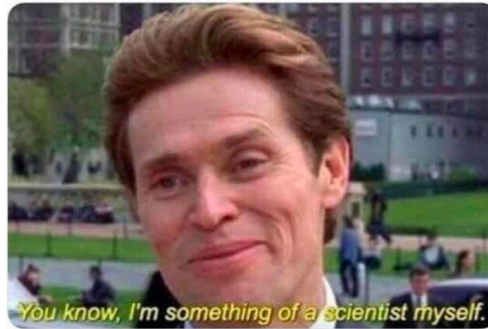
This meme casts doubt upon the hypothesis that the original poster of BEE («OP»)– the «speaker» in testimonial terms– really knew that *S*. But it would not necessarily undermine the previous justificatory account, since it defeats neither of the two inferential bases for my belief that *S*. The OP's not knowing that *S* does not undermine my inference about the cognitive content of BEE from the nature of inside jokes *on this instance*– although it may undermine the justificatory contribution of this principle on a *subsequent* occasion. Furthermore, the OP's not knowing that *S* has nothing to do with whether I am justified in inferring the correctness of beliefs that I gain from memes similar to BEE given a history of independent corroboration. This latter justificatory basis has nothing to do with whether the speaker in a given testimonial interaction really has knowledge. Actually, the fact that I have actually independently corroborated *S* by consulting another source (Hadley 2020) further *strengthens* this inductive basis. If it is true that the OP did not know that *S*, then this particular interaction would seem to turn out to be a matter of generation. Regardless of whether OP did or did not know that *S*, what is important for present purposes is that I have made a basic case showing that memetic testimony is possible, that it can take the form of either transmission or generation, and that local reductionist justificatory standards are achievable in such cases.

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3.32 Be kind, rewind

This second example (‹VHS›; *below left,* Sonovic 2022) comes from *VCR: VHS Collectors Resource*, a Facebook group of 9,300 members.

VHS is a token of the *I wish I was at home playing video games/They don't know* meme type, which depicts an introverted individual trapped in their thoughts while at a party. Here are two token examples (*over;* ‹What do You see...›, urmomlolroasted 2020).

The testimonial content of VHS can simply be read off:

V. «I [VHS] am a severely at-risk form of media and without immediate action and digitization it is very possible that entire decades [sic] worth of audiovisual heritage (particularly home movies, which provide valuable insight into daily life) will be lost– or indeed may already be lost due to poor storage conditions because of the perceived durability of cassette-based media».

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In this case, as well, the testimonial content is plausibly true. The durability of VHS tapes is estimated to be between 10-25 years, depending on storage conditions (Hilton 2019, Elliott 2020). Given that VHS use has sharply declined since the adoption of DVD in developed countries in the early 2000s, it is in fact entirely likely that much media that has been recorded on VHS, including home video, has already begun to degrade. Suppose now that I form a belief that *V* on the basis of VHS. Is my belief that *V* justified?

My own knowledge of VHS as a storage medium is limited to my usage of it (1) as a non-professional consumer and (2) as a child. My status as a novice with regard to the subject matter of *V* means that I have little in the way of positive non-testimonial grounds for believing that *V*. This raises the initial question of whether I have a presumptive right to believe that *V*– whether there are any potential defeaters which I ought to take into account. In this regard, I cannot imagine what potential defeaters might undermine my belief that *V*. I have no reason to suspect that the poster is being disingenuous. In the first place, *V* is entirely consistent with my background knowledge that VHS is in fact a disused analog storage medium. Although very general, this connection nonetheless constitutes a weak positive independent ground for believing in the reliability of VHS. In the second

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place, VHS bears no hint of the elitism that is occasional to the discourses of aficionados. Unlike BEE, VHS has no comedic intent. In fact, VHS subverts the standard narrative of the *They don't know* meme type: in contrast to the other token examples, VHS contains no self-deprecating humour. Instead, the personification of the storage medium within the image as an individual who has been forgotten at a party serves as a poignant metaphor for the real-life situation described by the locution. Where BEE plays on the epistemic gap between members of the audience for comedic effect, VHS is frank and evocative. This is completely in line with the differences in subject matter between the two cases. *VCR: VHS Collectors Resource* is a hobbyist community organised around a rather niche interest. The group is both smaller and more specialised than *Scientific Methodposting*. Thirdly, the small size of the community suggests that the group members, including the OP, are likely to all be enthusiasts. Being enthusiasts, they may well have expert knowledge of the long-term durability of VHS cassettes

These considerations, I believe, provide several positive independent grounds for believing in the reliability of VHS. Yet, even prior to enumerating these, there did not appear to be any glaring defeaters. So even had I never engaged in this reflection, my belief that *V* might still have been justified on local non-reductionist grounds.

3.4 No justification objection

Given what's been said earlier about memes, one might grant that BEE and VHS constitute *bona fide* instances of memetic testimony, but still maintain that memetic testimony is at most a severely limited phenomenon occurring under highly specific and unusual conditions. While it is plausible that people's beliefs are influenced by the memes they consume, it is unlikely that many of these encounters meet popular

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standards for testimonial justification. Not only might the audience actually lack positive non-testimonial reasons to believe in the reliability of the speaker, but, on top of this, there appear to be plenty of potential defeaters to testimonial justification in the case of memes. This is because of three properties of memes and meme circulation, which I shall discuss in turn:

1. Anonymity
2. Rampant misinformation
3. Virality is not veritistic

3.41 Anonymity

A distinctive feature of memes is their anonymity (Vulliamy 2022). Rarely, if ever, is there any indication of the author's identity in a meme– and when there is, the information that can be gleaned from this is often insufficient, or, in the worst case scenario, misleading. Of course, this is also assuming that meme audiences put in effort to independently verify the content of the memes they consume. If there is such a thing as memetic knowledge that is gained through testimony, it must be an exceedingly rare phenomenon occurring only under special circumstances. Such conditions are all but assuredly uncharacteristic of most people's interactions with memes. The overwhelming majority of memetic beliefs are acquired in conditions where the audience has little to no positive reason (whether non-testimonial or testimonial) to believe in the reliability of the speaker. As such, the local reductionist testimonial standard for justification is unlikely to be met except in very particular situations.

It's not just that the anonymity of memes makes it difficult to independently verify their content. There is reason to think that anonymity constitutes a *prima facie* reason to *doubt* their content outright. Some research links anonymity in online commenting to

measures of poor discursive quality (e.g., offensive language, typographical errors, all-caps typing; Fredheim, Moore, & Naughton 2015). This is all the more concerning given the absence of accountability mechanisms, the extensive reach potential, and the difficulty of purging epistemically pernicious content (Levmore 2010, 53).

3.42 Rampant misinformation

If this isn't enough, the foregoing examples of memes being used in large-scale propaganda and disinformation campaigns must surely give significant pause to any attempt at a non-reductionist defence of memetic testimony. The problem, in the case of COVID-19 and vaccine scepticism, has gotten so bad that Facebook, since August 2020, automatically appends warnings with links to further resources to any post which mentions either COVID or vaccines (including images, *below*; Savage 2022, cooldudepics 2022, Statt 2020).
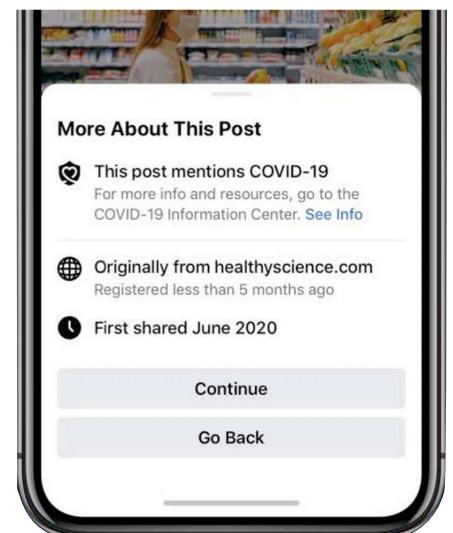
This is nothing new: the problem of misinformation on social media has been debated for at least nearly a decade (Constine 2014). Facebook, in particular, has drawn intense and sustained criticism for its role in propagating misinformation (with the related consequence of exacerbating political polarisation; Bakshy, Messing, & Adamic 2015). Worse still,

the social media company has been accused of antagonising research efforts aimed at analysing the spread of misinformation (Edelson & McCoy 2021a, 2021b). Its attempted solutions have been panned as half-measures and in some cases have backfired (NewsWhip 2019). Many critics are pessimistic– some concluding that misinformation is an ineliminable aspect of social media in general (Bernal 2018).

3.43 Virality is not veritistic

Even from afar, it's plain to see that social media is teeming with epistemic hazards. These issues are further compounded by worries about how memes circulate: while the jury is out on what exactly makes memes go viral (Berger & Milkman 2012; Shifman 2014, 65-97), what *is* evident is that it's not anything to do with their epistemic merits. Thus, potential defeaters abound. Even a vague awareness of these issues is enough to cast the entire notion of justified memetic testimony into question– and the individual user surely bears the responsibility of possessing at least such a vague awareness, if not more. In conclusion, memetic knowledge, if it is even possible, is the exception rather than the rule. This is because the ways in which we acquire and update our beliefs through memes all but categorically fail to meet non-reductionist justificatory standards.

3.5 Reply

This three-pronged critique takes the form of a sceptical argument: it posits potential defeaters, and concludes from these defeaters that knowledge in a certain domain (memetic-testimonial knowledge) is not possible. In this way, objections are raised against both local reductionist and local non-reductionist attempts at justification:

	Local reductionism	Local non-reductionism
Requirement	Positive non-testimonial grounds for believing in the speaker's reliability	Absence of reasons to doubt the speaker's reliability
Defeater	The anonymity of memes makes it difficult, if not impossible, to establish the speaker's reliability.	The anonymity of memes, the prevalence of misinformation transmitted by memes, and the fact that virality is not driven by epistemic virtues constitute *prima facie* reasons to doubt a speaker's reliability.

Like sceptical arguments, however, the present critique plays fast and loose with context. Epistemic justification always presupposes a context; it does not make sense to speak of justification in the abstract. What matters to justification depends on the content of the testimony and situational factors. In the local reductionist case, this means what kinds of evidence can suffice for believing in the speaker's reliability. In the local non-reductionist case, this means what counts as a defeater in the first place and whether one has a duty to be on the lookout for defeaters (Goldberg & Henderson 2006). Prior to accepting the sceptical conclusion about memetic testimony, we should first consider: *Is the sceptical worry itself justified in the first place? And if it is, then can the alleged defeaters be overcome?* I shall accept that the sceptical worries are warranted. That being said, I do not believe that they are indefeasible. In what follows, I shall outline strategies for circumventing the sceptical conclusion, thus ensuring the possibility of both local reductionist and local non-reductionist justifications of memetic testimony.

3.51 Local reductionism

In the first place, anonymity in itself need not lead us to conclude that memetic testimony must fail to meet local reductionist justificatory standards. It is true that a speaker's identity is often one of the most direct ways to ascertain their reliability with respect to the content of their testimony. That being the case, speaker identity is neither the only measure of speaker reliability, nor is it always relevant. Obviously, there are many

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features of speaker identity that can have nothing to do with their reliability with respect to a given attestation (e.g., one's race need not have anything to do with their reliability as a crime informant; Fricker 2007).

In many ordinary cases of testimony– such as when I ask a stranger the time on the street– one is not acquainted with the sources of testimony– and, moreover, the identity of the speaker may make little difference to their reliability. In such cases, we rely on alternative means of ascertaining their credibility. We search for positive non-testimonial justification by being attentive to our interlocutor's appearance and the setting of our exchange (where relevant)– by «monitoring» proxy indicators of speaker reliability (Fricker 1994, 149-50). Suppose I am trying to find my way in a hospital. I approach someone who is wearing a lab coat and ask them for directions. Despite not knowing who they were, I have positive non-testimonial reasons to take their testimony to be reliable. If there are epistemic peers in the vicinity, we might also appeal to them for testimonial corroboration of the speaker's credibility, or simply observe how they regard the speaker.

We can and do apply many of these same strategies when we navigate online spaces. Suppose I come across a meme while browsing a Facebook group. In trying to establish the reliability of the speaker, with whom I am unacquainted, I might ask questions such as:

· *What is the context of interaction?*
· If the relevant context is a Facebook group, for instance– *what are the goals of the group– is it a group for academic discussion or is it a group for sharing humorous memes?*
· *How do other people participate in this context? Are there often trolls in this group? Is the group actively moderated?*

In both online and offline testimonial interactions, there are almost always *some* surrogate measures of speaker reliability. Very often these include clues about the aspects of the

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speaker's identity which pertain to their attestation (e.g., the lab coat in the hospital example, whether someone who posted a meme is new in the group or a longtime member).

But of course, it is only in the minority of cases that we are usually confronted with the original author of a meme. Most of the time, there are unknowable degrees of separation between us and the original creator of a meme. But is this really that different from how we form beliefs in offline contexts? Clearly not– there is nothing in the idea of testimonial knowledge that precludes third-, fourth-, or fifthhand knowledge (Fricker 2002, 378).

It's not only that anonymity in itself does not rule out the possibility of positive non-testimonial justification. Moreover, neither does it constitute a defeater. This it because there are many cases where anonymity can actually provide justificatory support for a testimonial belief. For better or for worse– anonymity may help to make possible discussion about difficult topics (Connolly, Jessup, & Valacich 1990, 699). Many of these discussions may not even get off the ground unless if individuals feel that they can speak without fear of retaliation. Indeed, Fredheim, Moore, and Naughton found that de-anonymising commenting on Huffington Post news articles precipitated a shift in engagement «from politicised to blander topics» (2015, 1). Anonymity may contribute towards justification to the extent that one's testimony can be taken to be unfiltered or unfettered from duress.

Furthermore, anonymity can help to mitigate bias. In some cases, knowing the speaker's identity can provoke audience-side prejudices, which surely constitute defeaters for the conclusions they draw from the testimonial interaction. Because anonymous testifiers are typically presumed to be on an epistemic par, credibility deficits (Fricker 2007, 28) rarely beset anonymous testimony. As such, anonymity is crucial to epistemic diversity (Frost-

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Arnold 2014, 70) and epistemic justice (idem, 16-17). Where anonymity supports epistemic diversity and epistemic justice, it may also be of justificatory value.

This is not to deny that identity (Code 1981) and credentialed expertise (Pierson 1994; Martini 2019) routinely make a difference to the epistemic evaluation of a speaker's claims– quite the contrary. The upshot as concerns testimonial justification is this: the design of epistemic spaces (whether online or offline) requires a careful balance of anonymity and accountability mechanisms (Frost-Arnold 2014, 72-3, 76-8). This balance in turn determines how one goes about establishing a testifier's reliability– including the significance of speaker identity in a given scenario. While one can never be entirely certain that others will abide by the conventions of a given epistemic space, this worry is by no means unique to meme communities.

If the above arguments are correct, then we *can* have positive non-testimonial grounds for taking speakers to be reliable, whether they are the original meme authors or simply reposting memes from elsewhere. To be sure, whether this is so will have to be judged on a case-by-case basis. Ultimately, the objection from anonymity is not only too pessimistic, but, moreover, it glosses over the sophisticated ways in which we triangulate speaker reliability when direct information about their identity is unavailable. In this regard, the preceding cases BEE and VHS provide tentative directions for how to engineer spaces that promote the dissemination of knowledge.

3.52 Local non-reductionism

As concerns local non-reductionism, the question at hand is whether (1) the prevalence of misinformation transmitted by memes or (2) virality not being driven by epistemic virtues necessarily disqualify beliefs gained through memetic testimony from being justified. (1) implies that any given memetic testimony might contain some degree of

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misinformation (whether wilful or merely through negligence). (2) draws attention to the fact that memes are typically shared for reasons not having anything to do with truthfulness; instead, their propagative success is driven by their humour or other non-epistemic factors. If (1) and (2) do constitute defeaters, then individuals cannot be presumptively entitled to beliefs gained from memes.

The response to this sort of worry is simple: one– or even *many*– bad memes do not spoil the bunch. The possibility of testimonial knowledge is not foreclosed by either the pervasiveness of inaccuracy and misinformation in speech and text (Coady 1973, 155) or the experimental evidence of cognitive biases favouring the attention, encoding, and recall of certain kinds of information (Gervais & Henrich 2010; Berl et al 2021). Likewise, whether (1) or (2) pose live threats to presumptive testimonial justification must be determined *in situ*. The notion of an «online space» is not univocal (Magnus 2009). There is no *one* online space, even on a given platform (Cardon & Prieur 2013). The memes I have previously examined originated from specific meme communities with their own epistemic cultures where (1) or (2) may not pose any threat. These are not isolated cases– they comprise a sizeable portion of what has been called «Academebook»: a loose network of over 1,100 meme pages and groups3 on Facebook with broadly academic subject matter (*right*; Zharova 2021a). As has been alluded to, the epistemic culture on Academebook is *sui generis*– such spaces may offer a blueprint for how to design online epistemic spaces & how to promote positive epistemic engagement with memes.

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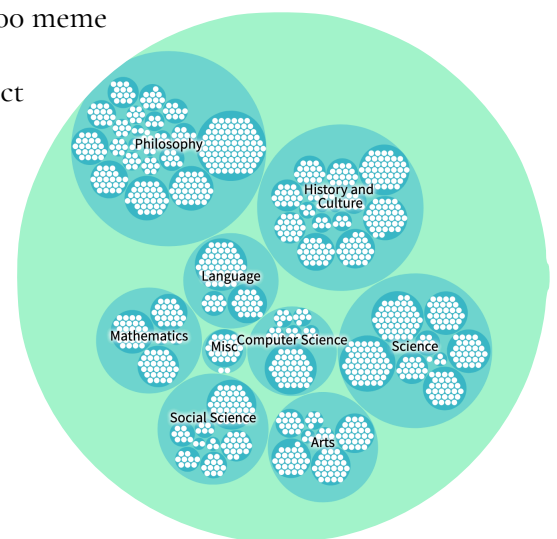
3 As of May 2021, estimates for the community size of Academebook ranged from 5.3-44 million unique users. For a methodological discussion of obstacles to estimating community size, see Zharova 2021b.

IV. Memetic Futures

4.1 Pepe the Frog is dead; long live Pepe!

*T*he study of memes draws on the resources of several philosophical traditions. From ontology to aesthetics to epistemology to philosophy of language, there is much ground to break. In this final section, I would like to outline several directions for future research.

4.11 Art & ontology

- Furie's Pepe is dead; Pepe the meme lives. Some memes, like Pepe, are more open-ended than others (Cross 2017). It is perhaps in virtue of this that Pepe was able to be so successful as a meme. Is Pepe the meme like a fictional character, but without canonicity?

- A picture is worth a thousand words– an image macro, even more. Because of their multimodal nature, memes seem to be able to efficiently convey immense amounts of information (*right*). This evocative potential, as well as other congenial features such as their anonymity, have put to good use by underrepresented minorities (Dahanayake 2018). In what ways could memes be used for cultural & political critique & hermeneutical epistemic justice?

- The cognitivist debate in the philosophy of art concerns the cognitive or epistemic value of works of art. Assuming that works of art can & do have epistemic value raises the question: what kind of epistemic source are works of art? As I have argued, memes toe the line between art & speech. Could the notion of memetic testimony lend support to one of artistic testimony (Luong 2022)?

4.12 Memetic epistemology

· Testimony is one side of a coin; the other side involves negative forms of epistemic interactions such as bullshitting (Frankfurt 1986) & lies. Can these two sides be integrated into a general theory of belief acquisition & updating?

· A memetic epistemology should not rule out the possibility of emergent epistemic differences between levels of analysis. As a paradigm, social epistemology does not merely consist in extrapolating the principles of epistemology *simpliciter* beyond the level of the individual. It's not just that certain issues of epistemic concern can only be studied from a level of analysis that focuses on groups. Certain aspects of social cognition may be *entirely invisible* from the ground level of the individual (e.g., the wisdom of crowds effect; Surowiecki 2004), & which defy the general principles that can be drawn at this level. The concept of Mandevillian intelligence, for instance, refers to a kind of collective cognition which is predicated upon the cognitive shortcomings of individual members of a group (Smart 2017, 4171). This radical notion is inspired by the theory that individual cognitive faults (e.g., forgetting, distorted recall) can have prosocial effects, in turn enhancing group fitness (idem, 4173). Similarly, collective cognitive performance might benefit from certain epistemic vices on the part of individuals (*cf.* Bordieu 1975; Kitcher 1990; Reijula & Kuorikoski 2019). Apart from accumulating experimental evidence, there is also emerging philosophical work on the value & function of epistemic vices in an epistemic community (Driver 1989; Eckstrand 2019; Frost-Arnold 2020; Astola 2021; Bland 2022; Peters 2022). What kinds of emergent epistemic patterns might arise from memetic circulation?

4.2 Future memetology

I would like to bring this thesis to a close with my favourite memes. The *American Chopper* meme type briefly gained traction in April 2018 before fading away into relative obscurity. Each of the below tokens summarises a contemporary debate in a different academic field, complete with citations (The fourth example does not even have text– it only has citations.). Effectively, one could use any one of these memes as a micro-syllabus, as a guided introduction into a contemporary academic discourse.

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I believe in the educational value of memes & their awesome potential for individual expression. It is my hope that future work on the philosophy of memes will help us to better understand how to live with memes.
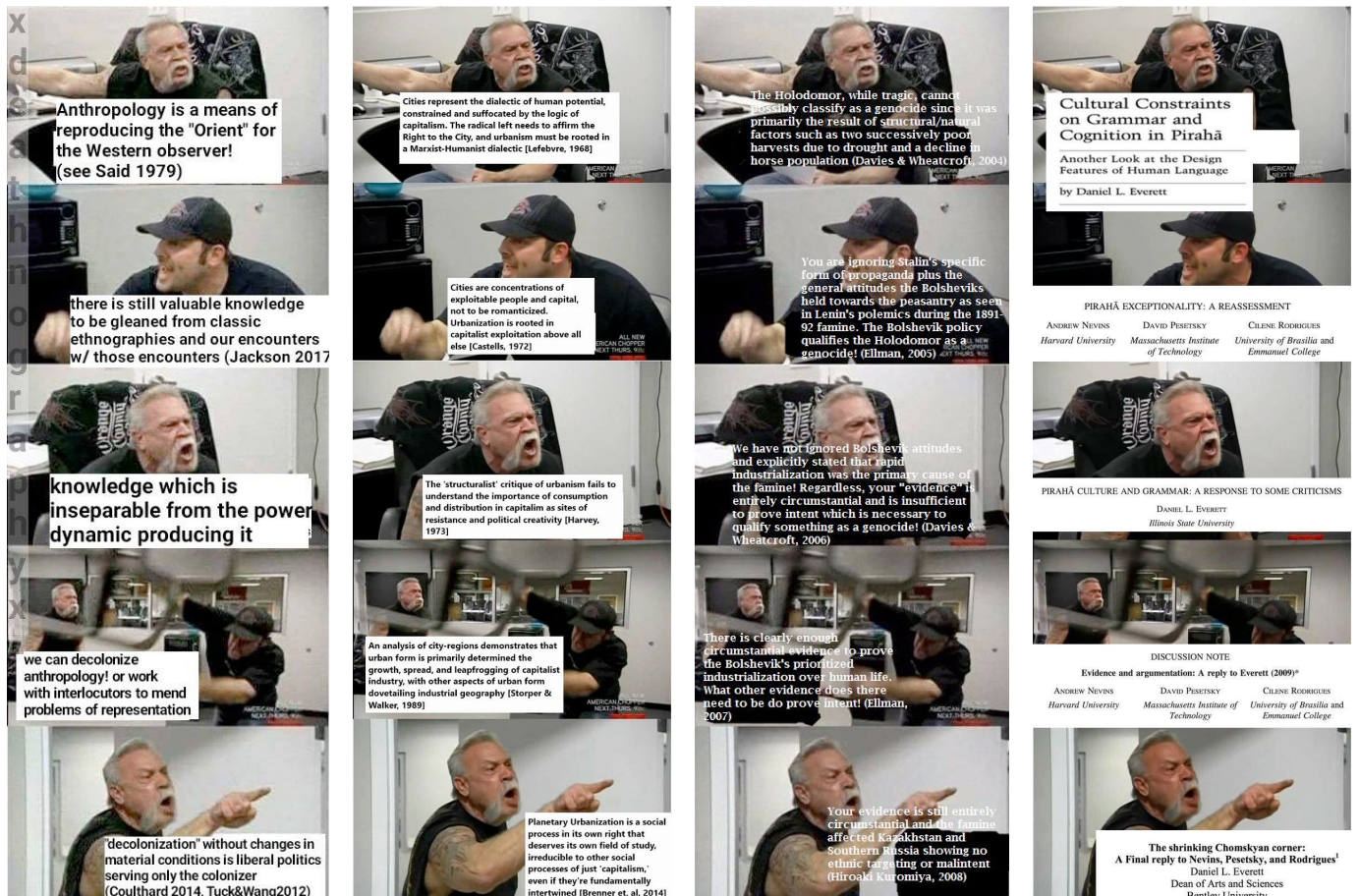
AMERICAN CHOPPERS (*from left to right*): Deathnography 2018, Duggan 2018, Braun 2018, unknown source

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