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## 14. ANGER in Indonesian: “Awakening a sleeping tiger”

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### 1. Introduction

This chapter<sup>1</sup> investigates the salient metaphoric and metonymic conceptualisations of the concept ANGER in standard Indonesian (Glottocode: indo1316), the official variety of Malay used in the Indonesian archipelago. Indonesian belongs to “the Malayic subgroup of Western Malayo-Polynesian” (Tadmor 2009: 791; Adelaar 2017: 571) of the Austronesian language. Malay-Indonesian is spoken by almost 280 million speakers combined in Indonesia, Malaysia, and Brunei (Tadmor 2009: 791; Adelaar 2017: 571). It has been the “lingua franca” in the regions and developed the colloquial varieties exhibiting great differences among themselves and with the standard language in many aspects of linguistic structures (Tadmor 2009: 793).

#### 1.1. Previous studies on emotion concepts in Indonesian

Heider (1991) analysed emotion concepts in Minangkabau spoken in West Sumatra, and Indonesian spoken by the Minangkabau and the Javanese communities. The goals were to map the connection between emotion words and identify prototypical scenarios of the emotions related to the relevant behavioural correlates. Then, Levenson et al.’s (1992) study, also in Minangkabau, measured the physiological correlates associated with (positive and negative) emotions. A recent collection of papers in Fox (2018) offers anthropological linguistic studies of emotions in the regional Austronesian languages of Indonesia.

Shaver et al. (2001) investigated the hierarchical and family-resemblance structures of emotion lexicons. They found that Indonesian and American English exhibit similarity in conceptualising EMOTION at (i) the superordinate level (i.e., positive, and negative emotions) (Shaver, Murdaya and Fraley 2001: 215–216); and (ii) the basic-level categories. Indonesian terms for the basic-level categories refer to the same categories as in American English, namely *cinta* ‘love’, *senang* ‘happiness’, *marah* ‘anger’, *kawatir/takut* ‘anxiety/fear’, and *sedih* ‘sadness’ (Shaver, Murdaya and Fraley 2001: 218).

Linguistic studies in Indonesian/Malay reveal the so-called “psycho-collocations” (Matisoff 1986), which are lexico-semantic figurative expressions for mental activities and personhood, and which component parts consist of body-part terms. Indonesian/Malay have extensive repertoires of psycho-collocations, especially with the word *hati* ‘liver’, suggesting the prominence of the liver as the seat of psychological realms in the Malay world (Siahaan 2008; Goddard 2008; Oey 1990; Sather 2018; Fox 2018a: 12; see also §8.4 below). Musgrave (2001) and Mulyadi (2012) investigated the syntactic and semantic properties of Indonesian emotion predicates. Mulyadi (2012) in particular is a contrastive study of emotion verbs between Indonesian and the Asahan Malay variety spoken in Tanjungbalai (Asahan), North Sumatra, Indonesia.

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<sup>1</sup> The chapter has been written using the R Markdown Notebook that allows interweaving the R programmatic codes and narratives for reproducible analysis of the statistics and visualisation in the manuscript. To download the supporting materials (annotated concordance data, R codes, and the R Markdown Notebook), go to the following Open Science Framework (OSF) repository: <https://doi.org/10.17605/OSF.IO/C3P4Y>. **Final, published version:** <https://doi.org/10.1515/9783110730999-014>

Indonesian emotions have also been analysed using Conceptual Metaphor Theory (CMT) (Siahaan 2008; Siahaan 2015; Rajeg 2013; Rajeg 2019; Rajeg and Rajeg 2023). Siahaan (2008) examined the cultural conceptualisations of *hati* ‘liver’, proposing that (i) liver divination ritual and (ii) ethnoreligious belief of *hati* as the locus for the living soul underlie the conceptualisations of *hati* as the seat of emotion and cognition (see also Goddard 2008). Siahaan’s (2015) follow-up study discovered that emotion is the predominant figurative extension of Indonesian temperature terms. Next, Rajeg (2013) analysed five Indonesian basic-level emotions. He applied Configural Frequency Analysis (CFA) (Gries 2009) to identify emotion-specific metaphors (Kövecses 2000a: 35) and examined how these metaphors semantically distinguish the emotions. Another study by Rajeg (2019) investigated the distinctive metaphors for HAPPINESS near-synonyms, combining the MetaNet (MN) approach (David 2017; Petruck 2016), Metaphorical Pattern Analysis (MPA) (Stefanowitsch 2004; Stefanowitsch 2006a), and Multiple Distinctive Collexeme Analysis (MDCA) (Hilpert 2006); the study reveals that metaphors strongly distinguishing HAPPINESS and JOY in English (Stefanowitsch 2004; Stefanowitsch 2006a) are also those distinguishing the Indonesian equivalences of HAPPINESS (i.e., ‘*kebahagiaan*’) and joy (‘*kegembiraan*’). Most recently, Rajeg and Rajeg (2023) found a relatively persistent diachronic salience of several HAPPINESS metaphors in two diachronic varieties of Malay (i.e., Classical Malay and Indonesian).

## 1.2. Previous studies on ANGER in Indonesian

Heider (1991: 57, Table 7) discovered that, in representing ANGER, figurative expressions (i.e., *palak* ‘stifling; angry’ and *panas hati* ‘lit. hot liver; angry’) received a higher rating than the literal expression (i.e., *marah*). Heider (1991: 24–25) also proposed four ANGER-like clusters in Minangkabau Indonesian: (i) “anger” clusters (*naik darah* ‘lit. rising blood; angry’); (ii) “anger/cruel” clusters (*bengis* ‘cruel; harshness’); (iii) “anger/dislike” clusters (*gemas* ‘irritated’); and (iv) “anger/trembling” clusters (*gemetar* ‘trembling’). The elicited scenarios from the “anger/cruel” clusters revealed that the antecedents of ANGER “are hurtful acts by others, especially naughty children, and the outcomes are physical violence and verbal abuse” (Heider 1991: 80, 116) (see, e.g., §3.2.1 and §3.2.2). Heider (1991: 80) also noted that in the actual, spontaneous behaviour (rather than in the elicited behaviour), Indonesians “mask most anger, and the open expression of anger is strongly disapproved of and negatively sanctioned”.

Rajeg (2013: 211–214) revealed that eight metaphors are significantly attracted to *amarah/kemarahan* ‘anger’. They are CONTROLLING EMOTION IS CONTROLLING A MOVING OBJECT, EMOTION IS PRESSURISED SUBSTANCE, EMOTION IS FLUID IN A CONTAINER, EMOTION IS HEATED FLUID IN A CONTAINER, EMOTION IS FIRE, (INTENSITY OF) EMOTION IS TEMPERATURE (HOT/COLD), (INTENSITY OF) EMOTION IS VERTICALITY (HIGH/LOW), and EMOTION IS NATURAL FORCES. Six metaphors are statistically repelled: EMOTION IS A POSSESSABLE OBJECT, CAUSING EMOTION IS OBJECT TRANSFER, EMOTION IS AN ACCIDENTAL MOTION, EMOTION IS A JOURNEY, BECOMING EMOTION IS FINDING AN OBJECT, and EMOTION IS LIQUID. The statistical attraction of Indonesian ANGER to the HEAT- and SUBSTANCE-related metaphors suggests the universality and centrality of these metaphors for ANGER as found in different languages (Kövecses 2000b), most notably English (Stefanowitsch 2006a; Lakoff and Kövecses 1987). Rajeg’s (2013) quantitative study complements Yuditha’s (2013) introspective proposal on the specific metaphors of anger. Lastly, Rajeg’s (2014) preliminary quantitative investigation demonstrates that distinctive metaphorical constructions across five ANGER synonyms prominently highlight the intensity aspect of ANGER.

This chapter presents new approaches in the study of Indonesian ANGER from the CMT and corpus linguistic perspectives. It integrates the lexical (Kövecses et al. 2019) (§3) and corpus-

based approaches (Stefanowitsch 2006b; Stefanowitsch and Gries 2006) (§4) into the so-called “salience-based approach” (Kövecses et al. 2015) (§2). The inclusion of metonymy (§3.2 and §4.2) and the contextual factors (§8) fill the gap from previous works in Indonesian, focusing only on metaphor and excluding contexts in the use of metaphors.

## 2. Methodology

The Indonesian terms corresponding to the English *anger* are *marah* ‘angry; anger’,<sup>2</sup> *amarah*<sup>3</sup> ‘anger’, and *kemarahan* ‘fury; rage; anger’ (*kemarahan* is the noun derivative from the root *marah*). The choice for these terms is based on Shaver et al.’s (2001: 217) finding that *marah* emerges as the prototypical label for ANGER category in Indonesian because *marah* is semantically broader and commonly used in everyday Indonesian. The commonality of (*a*)*marah* is also evident from the frequency data in the Indonesian Leipzig Corpora (ILC) (Goldhahn, Eckart and Quasthoff 2012). The combined token frequencies of (*a*)*marah* [15,229] is the highest compared to the other terms identified by Shaver et al. (2001: 218, Table 4), namely *geram* ‘furious; angry’ [1,378] and *berang* ‘furious; fury’ [684], as well as to the other near-synonyms of *marah*, namely *murka* ‘wrath; anger; fury’ [1,079] and *gusar* ‘angry; offended; annoyed’ [537] ( $X^2_{\text{goodness-of-fit}}=43435.5$ ;  $df=4$ ;  $p_{\text{two-tailed}} < 0.001$ ). Moreover, the derived noun *kemarahan* [4,400] is the most frequent compared to other noun derivatives based on the other roots, namely *kemurkaan* [205], *kegusaran* [112], *kegeraman* [103], and *keberangan* [9] ( $X^2_{\text{goodness-of-fit}}=15284.1$ ;  $df=4$ ;  $p_{\text{two-tailed}} < 0.001$ ).

The dataset for the type-based, lexical approach is culled from (i) the Indonesian WordNet (v1.0) (Bond et al. 2014);<sup>4</sup> (ii) the monolingual *Kamus Bahasa Indonesia* (the Indonesian Dictionary) (KBI) (Tim Penyusun Kamus Pusat Bahasa 2008); (iii) the official *Tesaurus Tematis Bahasa Indonesia* (the Indonesian Thematic Thesaurus) (<http://tesaurus.kemdikbud.go.id/tematis/>);<sup>5</sup> and (iv) a bilingual Indonesian–English dictionary (Stevens and Schmidgall-Tellings 2004). The relevant linguistic expressions were gathered as follows. From the WordNet, KBI, and the thesaurus, the three Indonesian ANGER words (*marah*, *amarah*, *kemarahan*) were used as the search terms. This approach will retrieve expressions that contain (one of) the ANGER terms in their definition entries. These expressions were then checked for the evoked metaphorical/metonymical conceptualisations by looking at their meanings in the *Kamus Besar Bahasa Indonesia* (KBBI) (the Big Indonesian Dictionary)<sup>6</sup> following the procedure

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<sup>2</sup> The English translations come from Stevens and Schmidgall-Tellings (2004).

<sup>3</sup> *Amarah* is the informal variant of *marah*, as indicated by the official *Kamus Besar Bahasa Indonesia* (KBBI) *The Big Dictionary of Indonesian* and defined under the entry for *marah*: <https://kbbi.kemdikbud.go.id/entri/marah> (accessed on October 26, 2021).

<sup>4</sup> The Indonesian WordNet 1.0 is available at <https://wn-msa.sourceforge.net> (last accessed on 24 October 2022.)

<sup>5</sup> The thesaurus is compiled and maintained by the Language Development and Cultivation Agency of the Ministry of Education and Culture of the Republic of Indonesia.

<sup>6</sup> I used KBI instead of KBBI because KBBI only outputs the brief definition of the three ANGER words but not the metaphorical/metonymical expressions related to them, which can be found through the linked thematic thesaurus in the entry. In contrast, the available full PDF version of KBI allows me to do a concordance-like search throughout the PDF using the target terms, which may appear in the definition of an entry related to them. This is not possible in KBBI because the search field is only used for the headword, not the words contained in the definition of the headword. That way, we need to know *a priori* all expressions which definitions contain the ANGER words.

of the Metaphor Identification Procedure (MIP) (Pragglejaz Group 2007; Steen et al. 2010) (see below). To gather the data from the bilingual dictionary, the English terms *anger* and *angry* were searched for in the PDF version of the dictionary; this procedure allows retrieval of the Indonesian expressions which English definitions contain the word *angry* or *anger*.

The dataset for the token-based, corpus approach is taken from the corpus files in the ILC (total size=200,811,058 word-tokens). ILC is chosen since, to the best of my knowledge, it is the only open access source to the largest collection of Indonesian texts<sup>7</sup> and allows downloading the raw corpus files. ILC mainly consists of randomly chosen websites [43% of the total size] and online news [41.3%], followed by Wikipedia dumps [8.2%] and a mixture of other sources [7.5%]. As in MPA (Stefanowitsch 2006a), 1,000 random concordance lines were retrieved for each *marah*, *amarah*, and *kemarahan* before manually discarding the irrelevant hits (i.e., duplicates, the predicative and attributive uses of the root *marah*, and the literal uses). Next, syntactically relevant collocations of the target terms with the potential source-domain lexical units (LUs) were manually determined (Stefanowitsch 2004: 138; Sullivan 2013: 3, 5), adopting the MetaNet (MN) approach that integrates MPA with Construction Grammar and Frame Semantics (Sullivan 2013; David 2017; see Rajeg 2019 for a recent application to Indonesian). The MIP was applied to determine whether the collocation of the target terms evokes metaphorical readings. It is determined whether the collocates' contextual meaning, when co-occurring with the ANGER terms, contrasts with their more basic meaning in other contexts, such that the "contextual meaning can be understood in comparison to the basic meaning" (Rajeg 2019: 64; Pragglejaz Group 2007: 3; Sullivan 2013: 36). The KBBI was used to determine the basic meaning of the collocates with reference to MIP's features of basic meaning, namely "more concrete (what they evoke is easier to imagine, see, hear, feel, smell, and taste), related to bodily action, more precise (as opposed to vague), historically older, and are not necessarily the most frequent meanings" (Pragglejaz Group 2007: 3). An additional diagnostic to determine the basic meaning is a question proposed by Soriano (2005: 91): "what exactly each expression 'was literally about'?" To illustrate, consider the following two examples for two different ways to convey the existence of *kemarahan* 'anger'.

- (1) *Kemarahan Presiden Jokowi terjadi saat men-(t)injau Pelabuhan Tanjung Priok*  
anger president NAME happen when AV-inspect dock NAME  
'President Jokowi's anger *happened* when inspecting the Tanjung Priok dock (ind-id\_web\_2015\_3M: 1310067)<sup>8</sup>
  
- (2) (...) *kemarahan itu bisa saja datang* (...)  
anger DEM can just come  
'(...) that anger could just *come* (...)' (ind-id\_web\_2013\_1M: 143884).

Example (1) is considered literal given the verbal collocate *terjadi* 'happen' represents an abstract event as its basic meaning and, in this collocation with *kemarahan* (another abstract domain), *terjadi* is still understood in the abstract domain of ANGER (Croft 2003: 192; Sullivan 2013: 9; Rajeg 2019: 99). In contrast, the collocation of *kemarahan* as the subject of the verb *datang* 'come'

<sup>7</sup> The alternative is the Indonesian corpus in *Sketch Engine* (SE), which is also from online materials as in ILC. However, SE is a paid service to which the institution I work in does not have paid subscription.

<sup>8</sup> At the end of the numbered example, the source of the example is given in the format "(corpus file name: sentence id)" as in (ind-id\_web\_2015\_3M: 1310067).

in (2), having a basic meaning in the domain of physical translational motion, induces the metaphorical “domain mapping” (Croft 2003: 192) and interpretation of the verb in the ANGER domain (see also Sullivan 2016: 147; Dancygier and Sweetser 2014: 135). Such metaphoric interpretation of *datang* emerges due to a mismatch between (i) the semantic type-constraint assigned to the semantic role of its subject (prototypically an animate entity) and (ii) the filler of that role, namely an abstract entity ANGER that is literally unable to perform a translational motion (see also Stickles et al. 2016: 194; Sullivan 2016: 148; Brooke-Rose 1958: 1). The principles of metaphor-domain evocation in a grammatical construction have been described extensively by Sullivan (2013; 2016). The unclear cases as to whether the tokens are metaphorical or literal were marked as “?” in the database available at <https://doi.org/10.17605/OSF.IO/C3P4Y> (Rajeg 2023).

The identified metaphorical expressions were then grouped thematically under their metaphorical source domains, adopting the MN approach. MN formalises the central notions in CMT by (i) representing the metaphor-input domains as semantic frames, and (ii) viewing (conceptual) metaphor as unidirectional mappings from the source-domain frames to the target-domain frames (including the mappings between the frame roles) that are mediated via the grammatical constructions (Sullivan 2013; Stickles et al. 2016; Croft 2009). The closest English equivalence of the Indonesian source-domain LUs guides the choice for the source-domain frames in the English MN Wiki repository<sup>9</sup> (see López 2011 for a similar approach in Spanish). The classification also considers the relevant categories from the previous studies. The metaphorical mappings within a metaphor are postulated by making use of the available frame roles in each MN frame entry or proposed anew based on the semantics of the source-domain LUs. The metonymic source domains are determined via expressions referring to the physiological effects of emotion.

The *metaphorical salience* measure for a given metaphor in the token-based, corpus approach considers the percentages of:

- a) the token frequency of a metaphor.
- b) the number of metaphorical linguistic expressions of a metaphor.
- c) the number of metaphorical mappings in a metaphor.

The token frequency of a given metaphor is all occurrences of metaphorical expressions evoking the metaphor; the percentage of the total token for a metaphor is calculated from the summed tokens of all metaphors in the database. The same procedure is applied to the percentages of the number of metaphorical linguistic expressions and metaphorical mappings (Kövecses et al. 2015: 344–346).

The metaphorical salience measure in the database for the lexical, type-based approach only considers the number of types of metaphorical linguistic expressions and the number of metaphorical mappings for a given metaphor. It is because the focus of such an approach is to gather the types (not tokens) of metaphorical expressions evoking a given metaphor and the respective metaphorical mappings.

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<sup>9</sup> The *MetaNet* main page: [https://metaphor.icsi.berkeley.edu/pub/en/index.php/MetaNet\\_Metaphor\\_Wiki](https://metaphor.icsi.berkeley.edu/pub/en/index.php/MetaNet_Metaphor_Wiki). The *MetaNet* frame repository: <https://metaphor.icsi.berkeley.edu/pub/en/index.php/Category:Frame>

### 3. Type-based salience analyses

#### 3.1. Metaphor

There are nineteen conceptual metaphors from the type-based, lexical dataset. *Table 1* presents the source domains of the metaphors that are rank-ordered by their degree of salience values (see the Aggregate column).

*Table 1.* Source domains of ANGER (type-based, lexical approach).

Metaphorical source domains	Types	% of all types	No. of metaphorical mappings	% of metaphorical mappings	Aggregate
FERCE, CAPTIVE ANIMAL	24	15.9	6	8.6	24.5
FIRE	19	12.6	5	7.1	19.7
PHYSICAL CONTACT/HARM	17	11.3	3	4.3	15.6
DISEASE	9	6.0	5	7.1	13.1
INSANITY	10	6.6	4	5.7	12.3
PRESSURISED SUBSTANCE	7	4.6	5	7.1	11.7
ANNOYANCE	11	7.3	3	4.3	11.6
BITTERNESS	7	4.6	4	5.7	10.3
HEATED FLUID	6	4.0	4	5.7	9.7
INTENSITY IS VERTICALITY	8	5.3	3	4.3	9.6
CONTAINED SUBSTANCE	5	3.3	4	5.7	9.0
NATURAL FORCE	4	2.6	4	5.7	8.3
SUBSTANCE	3	2.0	4	5.7	7.7
(UN)VEILED OBJECT	5	3.3	3	4.3	7.6
DEGREE OF CONTROLLING ANGER IS SIZE OF PATIENCE AS A CONTAINER	6	4.0	2	2.9	6.9
HEAT	4	2.6	3	4.3	6.9
SLEEPING ORGANISM	2	1.3	3	4.3	5.6
POSSESSION	1	0.7	3	4.3	5.0
DARKNESS	3	2.0	2	2.9	4.9
<b>TOTAL</b>	<b>151</b>	<b>100.0%</b>	<b>70</b>	<b>100.0%</b>	<b>200</b>

*Table 1* shows two metaphors in full, both with the source and target domains, because they are the more general metaphors.

##### 3.1.1. MARAH IS A FIERCE, CAPTIVE ANIMAL

The most salient conceptualisation of ANGER in the lexical database is FIERCE, CAPTIVE ANIMAL, manifesting 24 metaphorical expressions and six mappings as shown below.<sup>10</sup> The first two mappings are the foundational mappings underlying each of the metaphorical expressions.

restrained/captive, fierce animal → anger  
 entity who restrains/makes captive the animal → experiencer

<sup>10</sup> Throughout this chapter, the linguistic expressions of each mapping are presented immediately to the right of (and flowing below) the respective mapping. The mappings with their linguistic expressions are presented in the decreasing order of its number of linguistic type (i.e., the mapping's type frequency), below the foundational mapping(s) of the metaphor; this allows highlighting the central mapping and main meaning focus of the metaphor (Kövecses 2010: 140).

aggressive animal behaviour → aggressive anger behaviour (type=18) *beringas(an)* ‘wild; raging’, *keluar tanduknya* ‘get angry; lit the horns goes out’, *melesit* ‘to hum (of angry wasps)’, *menyentak-nyentak* ‘snarl’, *bengis* ‘cruelty’, *keberingasan* ‘wildness’, *membentak* ‘to snap at; to snarl at’, *menembis* ‘to snap at’, *menggermang* ‘becoming scary’, *meremang* ‘becoming scary; bristling’, *mengganas* ‘becoming violent/wild/ferocious’, *kebengisan* ‘cruelty; harshness’, *menggarang* ‘becoming fierce’, *bingas* ‘wild; fierce (of animal)’, *membangas* ‘to become wild/fierce’, *galak* ‘esp. of animals, fierce, savage, wild’, *menggalak* ‘esp. of animals, to become fierce, savage, wild, angry’, *mengernying* ‘to bare/show its teeth/fangs (of animals)’.

deliberately disturbing the animal → causing the danger of anger (type=3) *mengutik(-ngutik)* ‘touch with the finger (to get s.o.’s attention)’, *seperti ular kena bedal/palu/pukul* ‘as if a snake being hammered/punched’, *seperti ular dicubit ekor* ‘as if a snake being pinched in the tail’

unleashing a captive → expressing and losing control over anger (type=2) *melepaskan* ‘to let go; release’, *lepas* ‘free/loose/unbound/unchained’

restraining an entity → regulating anger (type=1) *menahan* ‘to hold (back); contain’

The main meaning focus of this metaphor is on the aggressiveness of the angered person. It is reflected in the mapping AGGRESSIVE ANGRY BEHAVIOUR IS AGGRESSIVE ANIMAL BEHAVIOUR because this mapping is the most productive indicated by the highest number of types [18]. The FIERCE, CAPTIVE ANIMAL is also salient in the corpus approach but differs in its central mapping and main meaning focus (§4.1.2).

### 3.1.2. MARAH IS FIRE

The ANGER IS FIRE metaphor is the second most salient in the type-based dataset (nineteen types and five mappings). Rajeg (2013) identified a statistically significant association between FIRE and ANGER in Indonesian.

fire → anger  
burning object → angry person  
intensity of fire → intensity of anger (type=15) *bakar hati* ‘to burn the liver’, *membara* ‘blazing; flaring up’, *menghanguskan hati* ‘to anger s.o.; lit. to singe/scorch the liver’, *kehangusan hati* ‘scorched/burnt liver’, *menyala-nyala* ‘be red hot (of anger); lit. to flare up’, *angus hati* ‘burnt out/scorched liver’, *terbakar* ‘got burnt’, *hangus hati* ‘scorched/burnt liver’, *mérah pijar* ‘glowing (of burning metal), blazing, red-hot’, *berapi-api* ‘to be on constant fire’, *hangus dada* ‘scorched/burnt chest’, *meruak* ‘to spread (of fire)’, *panas bara* ‘pent-up wrath/anger; lit. hot embers’, *mengobor* ‘to smoke out with a torch’, *berkobar* ‘flare up’

fire going out → ceasing anger (type=3) *lindap* ‘lee; shade’, *padam* ‘extinguished’, *memadamkan* ‘to extinguish’

igniting fire → causing anger (type=1) *mengupak* ‘to ignite fire’

Based on the number of linguistic expressions, the meaning focus of the metaphor is on the increased intensity of ANGER, which is the same in the token-based dataset (§4.1.3).

### 3.1.3. CAUSE OF MARAH IS PHYSICAL CONTACT/HARM

This metaphor is a sub-case of the EMOTIONAL EFFECT IS PHYSICAL CONTACT metaphor (see Lakoff and Johnson 1980: 50) and is the third most salient metaphor for ANGER with seventeen types and three mappings.

harmed/entity in contact → person('s body)

physically touching/harming a person('s body) → causing anger (type=10) *menyentil* 'to flick/hit with one finger', *menjentik* 'to pinch, tweak, nip', *melabrak* 'whack, hit, beat', *mengasah(kan) hati* 'make angry; lit. sharpen the liver', *membuat pegal hati* 'make the liver stiff and sore', *merentan hati* 'to make the liver fragile; quick-tempered', *mencolék* 'to poke/touch', *menggosok* 'to rub, brush', *menusuk-nusuk* 'to stab/pierce repeatedly', *mengilik-ngilik orang* 'to tickle person'

physical effect of touch/harm → effect of anger (type=7) *bengkeng* 'touched; brush against', *meremas perut* 'to knead, squeeze the stomach', *meremas jantung* 'to knead, squeeze the heart', *rengat* 'crack, split', *mengkal* 'hurt; irritated', *sakit hati* 'hurted liver', *kena marah* 'to get hit with anger'

The PHYSICAL HARM/CONTACT metaphor focuses on the cause of ANGER, conceptualised as physical touching or harm to a person and/or the person's body. In the token-based dataset (§4.1.18), this metaphor ranks very low (rank 18) and highlights a different aspect.

### 3.1.4. MARAH IS DISEASE

The ANGER IS DISEASE metaphor is realised by nine types and five different mappings. The productivity of the mappings suggests a focus on the undesirability and effect of ANGER as a disease.

patient → angry person

disease → anger (*gondok* 'goitre')

undesirability of the disease → undesirability of anger (type=4) *muak* 'to be fed up; nauseated', *jijik* 'disgusted, revolted', *gegetun* 'fed up', *beruras katang-katang* 'to be rubbed with the ointment of the 'katang-katang' leaves'

effect of the disease → effect of anger (type=3) *k(e)lojotan* 'suffer from epilepsy; epileptic', *merobok* 'to be affected on the inside and not visible externally (of a disease)', *nanar* 'confused, dazed (from an injury/sickness/drink)'

being treated with antidote → becoming calm (type=1) *menawari* 'to imbue with magic power'

In the token-based dataset, the DISEASE metaphor lies outside the top 20 most salient metaphors (rank 22; token=11; type=9; mapping=4). This indicates that the two different methods can complement one another to highlight the salient metaphor of a target domain.

### 3.1.5. MARAH IS INSANITY

Kövecses (1986: 20–22) proposes that the INSANITY metaphor is one of the principal metaphors for ANGER (see also Lakoff and Kövecses 1987: 204–205). It appears to be the case for Indonesian in the type-based analysis since it ranks in the top-5 list. All expressions (type=10) evoke the following mappings.

insanity → anger  
 insane person → angry person  
 becoming insane → becoming uncontrollably angry (type=5) *bercabul* ‘to rampage; lit. to act immorally’, *menggila* ‘becoming crazy’, *membabi buta* ‘to rage; lit. to be wild hog’, *mengamuk* ‘to go berserk’, *keselapan* ‘possessed by evil’  
 insane behaviour → uncontrolled angry behaviour (type=5) *amukan* ‘berserk’, *gila* ‘crazy’, *histeria* ‘hysteria’, *igauan* ‘delirium; prattle’, *kalap* ‘besides oneself with anger’

The metaphor focuses on the control aspect. Particularly, the experiencer has become “completely incapacitated cognitively as well as in terms of behavior” (Kövecses 2000a: 74) and exhibits insane behaviours (the third and fourth mappings from the top). This implies that ANGER is an intense emotion forcing the experiencer to lose all control. The INSANITY metaphor is also found in the token-based dataset but is much less prominent (rank 25) and has a lower number of types [7], despite the same number of mappings. Rajeg (2013: 111) also found only one token for the INSANITY metaphor (*EXP mabuk karena amarah* ‘EXP be drunk with anger’).

### 3.1.6. MARAH IS A PRESSURISED SUBSTANCE IN A CONTAINER

The PRESSURISED SUBSTANCE IN A CONTAINER is part of the SUBSTANCE/CONTAINMENT family of metaphors and found to be statistically central to ANGER in Indonesian (Rajeg 2013: 211). The metaphor is based on the lexical units (LUs) evoking two MN frames, the PRESSURE IN A CONTAINER (see the fourth mapping from the top below) and the (CAUSED) UPWARD MOTION frames (the third and fifth mappings). The metaphor realises seven types of metaphorical expressions and five mappings presented below.

contents/located entity → anger  
 container → angry person’s body  
 fluid (being caused to) rises (by pressure) → increased anger (type=4) *naik pitam* ‘get angry, become enraged; lit dizziness (due to blood raising to the head)’, *penaik darah* ‘person who raises the blood; angry person’, *naik darah* ‘rising blood’, *naik spaneng* ‘rising tension/voltage’  
 explosion of container → losing control over anger (type=2) *meledak* ‘to explode’, *eksplosif* ‘explosive’  
 exerting pressure on the fluid → causing increased intensity (type=1) *menaikkan darah* ‘to raise the blood’

The predominant metaphorical expressions show that ANGER is conceptualised as the blood substance, being increased/raised due to high pressure as captured in the third and fifth mappings. These mappings reveal the main meaning focus of (caused) increased intensity of the experienced ANGER and are related to the generic metaphor INTENSITY IS VERTICALITY/HEIGHT (§3.1.10). The inability to control such an increase makes the person explode (the fourth mapping). In the corpus dataset (§4.1.8), this metaphor is also ranked in the top 10.

### 3.1.7. (CAUSE OF) MARAH IS ANNOYANCE

The metaphor predominantly captures the cause of ANGER. It is based on metaphorical expressions referring to various physical and psychological disturbances manifested in the three mappings below. This metaphor is only identified in the lexical dataset.

annoyance/disturbance → cause of anger (type=8) *pengacauan* ‘disturbance’, *gangguan* ‘interference; hindrance’, *kegemasan hati* ‘annoyance; anger’, *membéngkengi* ‘annoyed; irritated’, *dongkol* ‘annoyed; irritated’, *salah penerimaan* ‘wrong, mistaken, erroneous; wrong reception/misunderstanding’, *makan bawang* ‘to be angry (lit. eating onions)’, *membawang* ‘to become angry; lit. to become onion’  
 irritated person → angry person (type=2) *pemakan bawang* ‘someone who gets angered easily; lit. onion eater’, *pembawang* ‘someone who gets angered easily; lit. someone having to do with onion’  
 person causing disturbance → person causing anger (type=1) *pengacau* ‘agitator’

Several types refer to generic annoyances/disturbances (e.g., *pengacauan* ‘disturbance’, *gangguan* ‘hindrance’, *pengacau* ‘agitator’); they can refer to physical or psychological annoyances and are underspecified for the degree of affectedness. The effect of *salah penerimaan* ‘wrong reception’ could be considered a psychological annoyance. There are specific verbal and nominal patterns based on the noun root *bawang* ‘shallot; onion’. The motivation behind the choice of *bawang* could be the irritation of the eyes (leading to the production of tears) that shallot/onion causes when someone chops it. The physical irritation caused by interacting with shallot/onion is mapped onto the cause of ANGER.

### 3.1.8. MARAH IS BITTERNESS

This metaphor is manifested into seven metaphorical expressions reflecting four metaphorical mappings. The metaphor is based on LUs evoking the MN TASTE frame.

bitterness → anger  
 person tasting bitterness → person experiencing unfairness  
 undesirability of bitterness → undesirability of anger (type=6) *getir* ‘bitter’, *pahit* ‘bitter’, *kopi pahit* ‘bitter coffee’, *pedar hati* ‘bitter liver’, *kegetiran* ‘bitterness’, *unek-unek* ‘embitterment’  
 reduced bitterness into plain taste → reduced anger (type=1) *tawar* ‘become plain of taste’

The third mapping has the predominant linguistic expressions. This indicates that the BITTERNESS metaphor highlights the undesirability of ANGER, reflecting its negative evaluation. The final mapping suggests that the bitterness could be reduced (i.e., turned into a plainer taste), which is mapped onto reducing the undesirability (and perhaps the intensity) of ANGER. In the corpus dataset, the metaphor is also attested but not salient as it sits in rank 42 out of the total 45 metaphors found (*Table 4*). Rajeg (2013) also did not find this metaphor for ANGER in his literary corpus.

### 3.1.9. MARAH IS A HEATED FLUID IN A CONTAINER

This is a heated variant of the CONTAINED SUBSTANCE metaphor (§3.1.11), incorporating the semantics of the MN HEATED FLUID frame. The HEATED FLUID IN A CONTAINER is one of the distinctive metaphors for ANGER in Indonesian (Rajeg 2013). In the lexical database, this metaphor is not too salient, represented only by six types of metaphorical expressions, and four mappings, two of which are the foundational mappings.

heated fluid → anger  
 the container → angry person

fluid heat level → anger level (type=5) *meluap* ‘boil over (of a liquid)’, *merobok* ‘to bubble; burble (of water)’, *mendidih* ‘to seethe’, *meruap* ‘bubbling up due to boiling’, *meruok* ‘bubbling up due to boiling’  
fluid (being caused to) rises → increased anger (type=1) *naik setum* ‘rising steam/fumes’

The predominant number of metaphorical expressions reveals that the metaphor highlights the high degree of intensity. This is conceptualised as a boiling substance. The final mapping also pertains to intensity, particularly the increasing degree of heat of the substance.

### 3.1.10. INTENSITY IS VERTICALITY/HEIGHT

This is a generic, orientational metaphor based on the (CAUSED) UPWARD MOTION and the VERTICALITY SCALE frames. Rajeg (2013: 212) identified the significant statistical association of this metaphor with ANGER. The metaphor is realised in eight expressions evoking three mappings.

verticality scale → intensity of anger

upward motion of the entity → increasing intensity of anger (type=7) *naik setrum* ‘rising electricity’, *dongkolnya segunung* ‘his anger was sky high (lit. as high as a mountain)’, *sirap hati* ‘angry; lit. slightly-lifted liver’, *menyirapkan* ‘to lift slightly’, *nyolot* ‘angry; lit to leap; jump up’, *naik marah* ‘raising anger’, *tersirap* ‘slightly lifted’

lower on a scale → less intensity of anger (type=1) *marah tiada sampai* ‘short-lived anger; lit. anger not reaching the endpoint of a scale’

The main meaning focus is on the increasing intensity of ANGER (without necessarily reaching the highest end of the scale). This is evident from the most productive mapping evoking the (CAUSED) UPWARD MOTION frame. The least frequent mapping indicates short-lived, low-intensity ANGER since the linguistic expression refers to ANGER not reaching the endpoint of the scale (*marah tiada sampai* ‘short-lived anger; lit. anger not reaching the endpoint of a scale’).

### 3.1.11. MARAH IS A CONTAINED SUBSTANCE

This is a short-hand label for the EMOTION IS A SUBSTANCE IN A CONTAINER metaphor. The metaphor is realised in five metaphorical expressions evoking four mappings. It is also found to be statistically associated with ANGER in Indonesian (Rajeg 2013: 211–212).

container → angry person

substance fullness level → anger level

contents/located entity → anger (type=1) *darah muda* ‘quick to anger; lit. young blood’

releasing/channelling the liquid (at others) → expressing anger (type=4) *memuntahkan* ‘to vomit sth.’, *pemuntapan* ‘outpouring’, *tersimbur* ‘spurted out’, *melampiaskan* ‘spurt/gush out’

The last mapping is the most productive. It indicates the main meaning focus of the metaphor, namely externalisation/expression of ANGER construed as releasing the substance, based on the LUs evoking the RELEASE LIQUID frame (cf. §4.1.1). This focus implies the inability to keep the ANGER inside.

The metaphor is part of the SUBSTANCE/CONTAINMENT source frames family postulated in the database. The other source frames are HEATED FLUID IN A CONTAINER (§3.1.9) and PRESSURISED

SUBSTANCE IN A CONTAINER (§3.1.6). The difference between the CONTAINED SUBSTANCE metaphor and the HEATED FLUID or the PRESSURISED SUBSTANCE variants is that the former lacks the heated and pressurised semantics of the frames. The intensity in the CONTAINED SUBSTANCE metaphor is construed via the quantity of the substance, and the expression of ANGER is captured via the externalisation of the substance.

### 3.1.12. MARAH IS A NATURAL FORCE

This metaphor is based on metaphorical expressions referring to the NATURAL DISASTER frame, a sub-case of the HARM frame family in the MN frame repository. The metaphor is found to be strongly associated with ANGER (Rajeg 2013: 213). The lexical dataset reveals only four types of expressions evoking four mappings.

- natural disaster → anger
- intensity of the natural force → intensity of anger (type=1) *angin-anginan* ‘windy; capricious; unpredictable’
- reducing the amount of the disaster → causing anger to cease (type=2) *meredakan* ‘to reduce; lessen; soothe; calm/quiet (down); cool off’, *menyurutkan* ‘to reduce; retreat (of water)’
- ceasing amount of force → ceasing anger (type=1) *reda* ‘subside [of storms/winds]’

The metaphorical expressions particularly highlight the ceasing intensity of the forces, suggesting the main meaning-focus of the intensity of ANGER. A similar theme is found in the corpus study (§4.1.14).

### 3.1.13. MARAH IS A SUBSTANCE

This OBJECT-related metaphor captures the intensity of ANGER in terms of object’s (or substance’s) firmness/solidity. The metaphor is realised by three metaphorical expressions and consists of four mappings.

- entity → anger
- degree of solidity/consistency of the entity → intensity of anger
- softness of entity → calmness (type=2) (*lembut hati* ‘soft liver’, *lunak* ‘soft’)
- melting ice → the reduction of anger (type=1) (*mencair* ‘no longer being angry; lit. to melt’)

The metaphorical expressions evoke two frames related to the FIRMNESS frame. The first one is the LAX frame (see the third mapping from the top above), which is in scalar opposition to the FIRM frame. The second frame is LIQUID (the last mapping), capturing the fact that a solid entity (e.g., an ice block) can be pliable like a liquid. All metaphorical expressions focus on reduced intensity.

### 3.1.14. MARAH IS AN (UN)VEILED OBJECT

This metaphor is realised by five types of expressions, manifesting three mappings. They evoke the HIDING frame (the second mapping from the top below) and CAUSED UPWARD MOTION frame (the third mapping).

(un)hidden object → anger

hiding/protecting an object → suppressing anger (type=4) *memendamkan* ‘to bury; hide’, *meredap* ‘kept inside, not appearing on the surface’, *menyembunyikan* ‘to hide; conceal’, *membenamkan* ‘to hide; conceal’

unveiling an object (i.e., cause to emerge) → expressing anger (type=1) (*menerbitkan* ‘to cause to emerge’)

The (UN)VEILED OBJECT metaphor relates to the social expression and degree of control of the experiencer to hide or expose the ANGER. The focus of the metaphor, based on the predominant metaphorical expressions, is hiding the ANGER. The corpus study (§4.1.17), however, reveals a different meaning focus of the metaphor.

### 3.1.15. DEGREE OF CONTROLLING MARAH IS THE SIZE OF PATIENCE AS A CONTAINER

The SIZE-/DIMENSION-related metaphor is based on LUs referring to the SIZE frame. It represents a generic though different nuance to capture emotional control from the previous metaphors focusing on the same aspect. There are six metaphorical expressions and two mappings for the metaphor as shown below.

physical entity → anger

reduced capability of managing anger → narrow dimension of an entity (type=6) *berkecil hati* ‘be angry; lit to have small liver’, *telinga tipis* ‘thin ear’, *sempit alam* ‘narrow realm/world’, *singkat sangu* ‘short provision’, *sempit kalang* ‘short/hot/quick-tempered; lit. narrow underlayer’, *singkat sungu* ‘short-tempered; lit. short horn (of animals)’

The metaphorical expressions reveal the main meaning focus of the inability to control ANGER. The size/dimension of the object could be viewed as the level of patience/calmness. The inferential aspect mapped from the source frame is that when this patience metaphorically shrinks, the person is no longer calm (i.e., unable to control the emotion) but becoming emotional (i.e., angry). This is a different inference in the use of the SIZE frame for the intensity level of ANGER, which is only found in the corpus data (§4.1.10).

### 3.1.16. MARAH IS HEAT

HEAT is considered to be a central, embodied source frame for ANGER in previous works (e.g., Kövecses 1986; Lakoff and Kövecses 1987; but consult also Gevaert 2005 for the cultural perspective based on diachronic evidence in the history of ANGER metaphor in the English language). It is proposed as the basis for two specific metaphors, namely ANGER IS FIRE (§3.1.2 and §4.1.3) and ANGER IS HEATED FLUID IN A CONTAINER (§3.1.9 and §4.1.11). This study found that the generic HEAT metaphor is not salient, being realised only by four metaphorical expressions manifesting three mappings as follows:

heat → anger

heated entity → angry person (type=2) (*kepiting rebus* ‘stewed crab’, *udang rebus* ‘stewed shrimp/prawn’)

being heated up → becoming angry (type=2) (*naik pan* ‘get angry; lit get on the toaster’, *naik pelak* ‘get angry; lit raising heat’)

The difference between the HEAT metaphor in the lexical approach and the TEMPERATURE metaphor in the corpus approach is as follows. The former focuses on the characteristic of an easily angered person as always hot, reflected by the linguistic expressions that do not encode any reduction of the heat. Meanwhile, the latter (i.e., TEMPERATURE) highlights the dynamics of the intensity when being angry, namely (i) can be reduced (i.e., cooled off) or (ii) reaching the highest temperature; this is supported by the linguistic expression referring to coolness. In the MN frame repository, HEAT is a different frame and is considered a perspective of the TEMPERATURE frame, which covers the range of temperature scale (from hot to cold). The HEAT frame itself is also linked to the COLD frame via “in scalar opposition to” relation.

### 3.1.17. MARAH IS A SLEEPING ORGANISM

This metaphor is based on the AWAKENING frame in which ANGER is mapped onto the inactive/calm sleeping organism role in the frame (Stefanowitsch 2006a: 76–77). There are only two metaphorical expressions evoking the following three mappings:

sleeping organism → anger

awakening/fishing out the organism → causing anger (*membangkitkan marah* ‘to arouse one’s anger’)

awaken entity → anger near the limit (*bangkit amarah* ‘anger rose’)

The metaphorical expressions suggest the causation and onset of ANGER. From one perspective, the SLEEPING ORGANISM metaphor could be viewed as a pre-cursor, or a part, of the FIERCE, CAPTIVE ANIMAL metaphor where the awakened organism/animal has been in fierce and aggressive behaviour (e.g., due to being awakened/disturbed). The AWAKENING frame, in combination with the FIERCE ANIMAL frame in ANGER IS A FIERCE, CAPTIVE ANIMAL, is also reflected in the common Indonesian proverb for ANGER *membangunkan macan tidur* ‘to awaken a sleeping tiger’. The verb *membangunkan* ‘to awaken; to wake s.b. up’ and *tidur* ‘(a)sleep’ evoke the AWAKENING frame, meanwhile *macan* ‘tiger’ evokes the FIERCE ANIMAL frame. The proverb highlights the danger of invoking ANGER out of a calm state.

### 3.1.18. MARAH IS POSSESSION

This is not a prominent metaphor in the lexical approach as it is realised by only one type (*ambil* ‘take’), evoking the GAIN POSSESSION frame:

(3) *Jangan ambil marah*

do.not take anger

‘Do not take the anger’ (Stevens Schimdgal Tellings 2004: 30)

This example means that the person should stay calm by not taking the ANGER object into his/her possession, implying a negative valence of possessing an ANGER object. The mappings inferred from (3) are as follows:

possessable object → anger

(candidate) possessor → experiencer

taking/gaining the possessable object → becoming angry

The low salience of the POSSESSION metaphor family is not surprising given that Rajeg (2013: 213–214) found a statistically significant dissociation of the metaphor with ANGER (§0).

### 3.1.19. MARAH IS DARKNESS

This metaphor is based on LUs from the DARKNESS frame and is evoked by three types manifesting two mappings as follows:

darkness → anger  
 person('s body) being in darkness → angry person (type=3) (*gelap pikiran* ‘dark mind’, *kegelapan* ‘undergoing darkness; angry’, *silap hati* ‘dark liver’)

Semantically, the metaphor highlights the negative assessment of ANGER (Stefanowitsch 2006a: 77). One prototypical example of the negative effect of a person being in the dark is the inability to see (and by extension, to think) clearly (or rationally) (§3.2.8).

### 3.2. Type-based salience: Metonymy

There are 93 types of metonymic expressions for ANGER grouped under twelve (conceptual) metonymies. The metonymies are rank-ordered in *Table 2* by the number of their metonymic expressions.

*Table 2.* Conceptual metonymies for ANGER (type-based, lexical approach).

Metonymy	Types	% of all types
STRONG/AGGRESSIVE VERBAL BEHAVIOUR FOR MARAH	43	46.2
VIOLENT FRUSTRATED BEHAVIOUR FOR MARAH	13	14.0
AGGRESSIVE VISUAL BEHAVIOUR FOR MARAH	7	7.5
BODY HEAT FOR MARAH	7	7.5
INTERNAL PRESSURE FOR MARAH	7	7.5
LIP/TEETH BITING/PRESSING FOR MARAH	4	4.3
REDNESS IN THE FACIAL AREA FOR MARAH	3	3.2
INABILITY TO SEE FOR MARAH	3	3.2
BREATHING DIFFICULTY FOR MARAH	2	2.2
STANDING BODY HAIR FOR MARAH	2	2.2
CARESSING THE CHEST FOR MARAH	1	1.1
CLENCHING FIST FOR MARAH	1	1.1

The salience of each metonymy can only be measured in terms of the number of the metonymic expressions, given the metonymies only involve a single mapping. The mapping is reflected in the naming of the metonymy in the form of METONYMIC SOURCE DOMAIN FOR METONYMIC TARGET (or X FOR Y).

#### 3.2.1. STRONG/AGGRESSIVE VERBAL BEHAVIOUR FOR MARAH

The type-based analysis reveals that STRONG/AGGRESSIVE VERBAL BEHAVIOUR is the predominant metonymy for ANGER in Indonesian ( $X^2_{\text{goodness of fit}}=192.03$ ,  $df=11$ ,  $p=3.33e-35$ ), showing the largest inventory of metonymic expressions.

- *bergaduh* ‘to quarrel’; *bersungut-sungut* ‘to grumble, grouse’; *mencerca* ‘to reprimand, vilify’; *mencercai* ‘to reprimand, vilify’; *mendamprat* ‘to scold’; *menembis* ‘to scold’; *menengking* ‘to snarl at, scold’; *menggebos* ‘to snap at, scold, reprimand’; *menyegak* ‘to

snarl/snap at’; *menyemprot* ‘to spray, squirt; to reprimand, scold’; *merajuki* ‘to reprimand, rebuke, sulk over/toward’; *gentus* ‘angry, hurtful, sharp words; lit push, shove’; *merengus* ‘surlly; grumpy’; *berteriak-teriak* ‘to shout, yell, scream’; *bertura-tura* ‘to grumble, nag, grouse, peevish’; *judes* ‘sharp (tongued)’; *kereng* ‘harsh, stern, gruff, brusque’; *leja meleja* ‘use abusive language’; *meleja* ‘to use abusive language; to be angry at’; *memaki-maki* ‘to use abusive language; to curse’; *mencela* ‘to condemn’; *mencomél* ‘to grumble, nag, grouse’; *mengata-ngatai* ‘to scold’; *menggerundel* ‘to grumble, complain’; *menggerutu* ‘to grumble, nag, grouse’; *menghardik(kan)* ‘to use sharp/harsh words (when angry), to scold’; *mengomél* ‘to grumble, nag, verbally harass s.b.’; *mengoméli* ‘to be angry at; reprimand; rebuke; admonish’; *mengumpat* ‘to swear at, curse’; *menyembur* ‘to reprimand’; *menyumpahi* ‘to curse, swear’; *merenta-renta* ‘speaking in a loud and angry voice’; *merongséng* ‘to grumble, nag, grouse’; *merutuk* ‘to grumble, mutter, complain’; *ngedumel* ‘to grumble, grouch’; *ngelédek(-in)* ‘to irritate, anger, annoy’; *suara kumbang dijolok* ‘angry sounds; lit voice of poked bee’; *bercuracura* ‘to abuse s.o.’; *latah mulut* ‘to speak randomly and badly (because of angry)’; *berampus* ‘to use abusive language to’; *ribut* ‘noisy’; *menyentak-nyentak* ‘angry while cursing’; *tengking* ‘high-pitched sound/voice’

These expressions are mostly verbs encoding the manner of speaking that metonymically point to the internal, emotional state of the speaker. When someone speaks in the manner conveyed by these expressions, the hearer could infer that the speaker is angry. Several expressions glossed as ‘snarl/snap at’ could also reflect the metaphorical mapping “aggressive animal behaviour → angry human behaviour”.

### 3.2.2. VIOLENT FRUSTRATED BEHAVIOUR FOR MARAH

Linguistic expressions evoking certain harsh and violent actions/behaviours can be metonymically used to refer to ANGER. This is motivated experientially in that frustration often leads to ANGER, which then brings about some irrational, harsh, dangerous, or violent actions. The actions can be directed at oneself or others.

- *memencak-mencak* ‘to be very angry/furious; lit. jump up-and-down over someone’; *menggerendeng* ‘to act as if wanting to attack’; *meluru* ‘to dash and chase in order to attack’; *menggeragas* ‘to tear at one’s hair with one’s fingers or a comb in anger or excitement’; *mendamik dada* ‘beat one’s chest in anger’; *mengentakkan kaki* ‘to stamp the feet (in anger)’; *berentak/merentak kaki* ‘to stamp one’s feet (in anger)’; *sepak terjang* ‘to kick and trample with the foot (out of anger)’; *agresif* ‘aggressive’; *menggebrak* ‘to hit hard with the hand at sth. (typically, a table or door)’; *merenyuk* ‘standing up abruptly due to anger’; *menebah dada* ‘to hit/punch the chest’; *belum tegak hendak berlari* ‘easily angered; lit not yet straight up but wanting to dash’

The metonymy is a sub-case of a more generic metonymy, namely EFFECT OF EMOTION STANDS FOR EMOTION.

### 3.2.3. AGGRESSIVE VISUAL BEHAVIOUR FOR MARAH

This metonymy represents the externalisation of ANGER via the aggressive forms of visual and/or facial behaviours. This is shown by the presence of facial-related body parts (e.g., mouth, eyes, face) in several metonymic expressions, or in the inherent meaning of the expressions.

- *meléngos* ‘to turn one’s head to the side or away (in contempt/disdain/anger/to avoid seeing s.o.)’; *muka berkerut* ‘to wrinkle/furrow the face; showing signs of anger.’; *menyeringai* ‘to move one’s lip in anger; twist into grin’; *memelototkan mata* ‘to open the eyes wide; to stare’; *merengus* ‘bitter face’; *membersut* ‘to glare/glower/snarl’; *muka sengit* ‘sharp face’

#### 3.2.4. BODY HEAT FOR MARAH

In the classic CMT literature (e.g., Lakoff and Kövecses 1987), the increased body heat is one of the experiential motivations for the HEAT-related metaphor of ANGER, such as ANGER IS FIRE. Such bodily experience is felt during intense ANGER and becomes a metonymic source domain for construing ANGER.

- *panas kuping* ‘to be angry/resentful; anger; lit. hot ears’; *dingin kepala* ‘cool-headed; not getting angry easily’; *kegerahan* ‘suffer from stifling heat (due to threatening rain)’; *radang* ‘feverish, hot’; *meradang* ‘to become feverish/inflamed’; *meradangkan* ‘feverish; hot; to get very angry at; to make s.o. angry’; *pemanas hati* ‘heater of the liver’

The metonymy is also a sub-case of the generic metonymy EFFECT OF EMOTION STANDS FOR EMOTION. The metonymic expressions refer to a situation where someone experiencing heat in their body (e.g., *radang* ‘feverish’, *kegerahan* ‘stifling heat’) and that is used to indicate ANGER.

#### 3.2.5. INTERNAL PRESSURE FOR MARAH

The linguistic expressions under this metonymy refer to different kinds of internal bodily pressures, such as blood pressure, muscular pressure, and swollen chest.

- *darah tinggi* ‘high blood pressure’; *mencacak* ‘standing up right’; *menegak* ‘standing up right’; *tegang* ‘tense’; *bludrékan* ‘(high) blood pressure, hypertension’; *cepat darah* ‘quick blood’; *sempit dada* ‘narrow chest’

#### 3.2.6. LIP/TEETH BITING/PRESSING FOR MARAH

This metonymy can be related to the issue of emotional control. Given intense internal pressure, it forces angry persons to externalise and react due to their ANGER. In that case, biting/pressing the lip/teeth may accompany the person’s effort to remain calm, and it is metonymically used to indicate ANGER.

- *menggigit bibir* ‘to bite/press together one’s lips’; *menggertakkan gigi* ‘to bite the teeth’; *menggigit gigi* ‘to bite/press together one’s teeth’; *mengetap(kan) bibir* ‘to bite/press together one’s lips’

#### 3.2.7. REDNESS IN THE FACIAL AREA FOR MARAH

Another physiological effect of ANGER is a physiological change in the facial area, such as flushing or being livid. This bodily experience is used to refer to ANGER.

- *mérah telinga* ‘red ears’; *mérah padam* ‘scarlet red (of face)’; *darah menyembur ke muka* ‘blood spouts/gushes to the face’

As we can see, a different body part around the face can be involved, such as the ear (*telinga*).

### 3.2.8. INABILITY TO SEE FOR MARAH

This metonymy appears to be the experiential grounding of the DARKNESS metaphor (§3.1.19). All metonymic expressions capture the visual-perception interference as if the eyes are (seeing) dark; hence, inability to see and, by way of semantic extension, think rationally.

- *mata gelap* ‘eyes being dark’; *gelap mata* ‘dark eyes’; *silap mata* ‘dark eyes’

### 3.2.9. BREATHING DIFFICULTY FOR MARAH

Intense, excited ANGER could lead to intense and difficult breathing. The expressions referring to difficulty in breathing, due to excessive heat and/or no fresh air, are used metonymically to refer to ANGER.

- *naik palak* ‘get angry; lit. increased stifling’; *palak* ‘angry; lit. stifling.’

### 3.2.10. STANDING BODY HAIR FOR MARAH

This metonymy might be more relevant to fear than ANGER. However, in the Indonesian database, the expression related to bodily hair can refer to ANGER. It is the case in the body part where no bodily hair is expected to grow, namely the liver (*hati*).

- *berbulu hati* ‘angry; lit hairy liver’; *menyangkak hati* ‘one’s hair stands on the end of the liver’

### 3.2.11. CARESSING THE CHEST FOR MARAH

The situation when someone holds onto, or caresses, their chest, as if holding something from getting out, can refer to someone’s effort to stay under control (i.e., being patient) (see also §3.2.6). The metonymic expression below indicates that *dada* ‘chest’ could contain ANGER.

- *mengelus dada* ‘to hold in one’s feeling of anger; lit. to caress, stroke the chest’

### 3.2.12. CLENCHING FIST FOR MARAH

This metonymy can be interpreted as highlighting control or an expression of ANGER (e.g., ready to attack the wrongdoer with the punch/fist).

- *menggenggamkan tangan* ‘to clench fist’

## 3.3. Types of the metonymies (type-based dataset)

The metonymies in Table 2 can be categorised into two broader categories (Table 3 below): (i) social-communicative behaviours of ANGER; and (ii) the associated physiological responses.

Table 3. Two types of metonymies of ANGER (type-based dataset).

Social-communicative behaviour	Physiological response
STRONG/AGGRESSIVE VERBAL BEHAVIOUR FOR MARAH (type=43)	BODY HEAT FOR MARAH (type=7)

Social-communicative behaviour	Physiological response
VIOLENT FRUSTRATED BEHAVIOUR FOR MARAH (type=13)	INTERNAL PRESSURE FOR MARAH (type=7)
AGGRESSIVE VISUAL BEHAVIOUR FOR MARAH (type=7)	LIP/TEETH BITING/PRESSING FOR MARAH (type=4)
	REDNESS IN THE FACIAL AREA FOR MARAH (type=3)
	INABILITY TO SEE FOR MARAH (type=3)
	BREATHING DIFFICULTY FOR MARAH (type=2)
	STANDING BODY HAIR FOR MARAH (type=2)
	CARESSING THE CHEST FOR MARAH (type=1)
	CLENCHING FIST FOR MARAH (type=1)
<b>TOTAL<sub>type=63</sub></b>	<b>TOTAL<sub>type=30</sub></b>

Table 3 demonstrates that metonymies referring to the physiological responses are greater in number than those for the social-communicative behaviour. However, the total number of metonymic linguistic expressions/types is significantly higher for the social-communicative category (type=63) than the physiological category (type=30) ( $p_{\text{Binomial two-tailed}} < 0.001$ ).

#### 4. Token-based salience

The token-based, corpus study reveals 1,607 tokens of metaphorical expressions (manifesting 45 metaphors) (§4.1) and 115 tokens of metonymic expressions (manifesting eleven metonymies) (§4.2).

##### 4.1. Metaphor

Table 4 presents all metaphor types identified from corpus-based analysis. From the total nineteen metaphors identified in the type-based, lexical approach (Table 1), 78.9% (i.e., fifteen metaphors) are also attested in the corpus approach. The metaphors identified only in the lexical approach (ordered decreasingly by their salience) are (CAUSE OF) ANGER IS ANNOYANCE (11.6%; rank=7), ANGER IS A SUBSTANCE (7.7%; rank=13), DEGREE OF CONTROLLING ANGER IS THE SIZE OF PATIENCE AS A CONTAINER (6.9%; rank=15), and ANGER IS HEAT (6.9%; rank=16). The remaining 66.7% (30 types) of the token-based metaphors are absent from the lexical dataset. The corpus-based approach can thus complement the lexical approach by offering a higher likelihood to identify more metaphors.

Table 4. Source domains of ANGER (token-based, corpus approach).

Metaphorical source domains	Tokens	% of all tokens	Types	% of all types	No. of metaphorical mappings	% of metaphorical mappings	Aggregate
CONTAINED SUBSTANCE	183	11.4	52	9.9	9	4.7	26.0
FIERCE, CAPTIVE ANIMAL	179	11.1	36	6.9	6	3.2	21.2
FIRE	134	8.3	32	6.1	7	3.7	18.1
WEAPON	169	10.5	20	3.8	5	2.6	16.9
ADVERSARY	54	3.4	38	7.2	7	3.7	14.3
INTENSITY IS VERTICALITY	78	4.9	22	4.2	6	3.2	12.3
CONFINEMENT/IMPEDIMENT	41	2.6	26	5.0	7	3.7	11.2
PRESSURISED SUBSTANCE	47	2.9	21	4.0	5	2.6	9.5
POSSESSION	49	3.0	16	3.0	6	3.2	9.2
INTENSITY IS QUANTITY	32	2.0	21	4.0	6	3.2	9.2
HEATED FLUID	44	2.7	17	3.2	6	3.2	9.1
SUBMERGED ENTITY	93	5.8	8	1.5	3	1.6	8.9

Metaphorical source domains	Tokens	% of all tokens	Types	% of all types	No. of metaphorical mappings	% of metaphorical mappings	Aggregate
SLEEPING ORGANISM	89	5.5	8	1.5	3	1.6	8.6
NATURAL FORCE	43	2.7	14	2.7	6	3.2	8.6
SUPERIOR	32	2.0	19	3.6	4	2.1	7.7
BIOLOGICAL ENTITY	18	1.1	14	2.7	7	3.7	7.5
(UN)VEILED OBJECT	38	2.4	14	2.7	4	2.1	7.2
PHYSICAL CONTACT/HARM	19	1.2	14	2.7	4	2.1	6.0
INTENSITY IS LUMINOSITY	52	3.2	5	0.9	3	1.6	5.8
PERSON	27	1.7	7	1.3	5	2.6	5.6
(AB/PRE)SENCE OF AN OBJECT	17	1.1	10	1.9	4	2.1	5.1
DISEASE	11	0.7	9	1.7	4	2.1	4.5
AGENT OF FORCED MOTION	13	0.8	5	0.9	5	2.6	4.4
AGENT	21	1.3	10	1.9	2	1.1	4.3
INSANITY	10	0.6	7	1.3	4	2.1	4.0
PHYSICAL STRUCTURE	5	0.3	5	0.9	5	2.6	3.8
LOCATION	7	0.4	7	1.3	4	2.1	3.8
INTENSITY IS TEMPERATURE	7	0.4	7	1.3	4	2.1	3.8
CONTAINER	5	0.3	4	0.8	5	2.6	3.7
BURDEN	6	0.4	5	0.9	4	2.1	3.5
STAIN	5	0.3	5	0.9	4	2.1	3.3
INTENSITY IS PHYSICAL STRENGTH SCALE	8	0.5	5	0.9	3	1.6	3.0
MOVING OBJECT	9	0.6	4	0.8	3	1.6	3.0
EVIL CREATURE	3	0.2	3	0.6	4	2.1	2.9
MOVED OBJECT	7	0.4	4	0.8	3	1.6	2.8
(UN)MIXED SUBSTANCE	12	0.7	5	0.9	2	1.1	2.8
INTENSITY IS OBJECT DIMENSION/SIZE	4	0.2	2	0.4	4	2.1	2.7
DARKNESS	4	0.2	4	0.8	3	1.6	2.6
DRAWING/WRITING	10	0.6	4	0.8	2	1.1	2.5
DECEIVER	9	0.6	4	0.8	2	1.1	2.5
PATH	2	0.1	2	0.4	3	1.6	2.1
BITTERNESS	2	0.1	2	0.4	2	1.1	1.6
CURE	2	0.1	2	0.4	2	1.1	1.6
OBJECT	2	0.1	2	0.4	2	1.1	1.6
ACCOMPANIMENT	5	0.3	4	0.8	1	0.5	1.6
<b>TOTAL</b>	<b>1,607</b>	<b>100%</b>	<b>525</b>	<b>100%</b>	<b>190</b>	<b>100%</b>	<b>300</b>

The top 20 metaphors in *Table 4* will be discussed to roughly match the similar number of metaphors found in the lexical approach (*Table 1*). Just over half (i.e., 55%; n=11) of the metaphors in the top 20 list is shared between the two approaches. The metaphorical mappings for each metaphor will be presented in the decreasing order of their type frequencies (i.e., the number of linguistic expressions) to ease the identification of the “main meaning focus” of the metaphor via “the metaphorical linguistic expressions that *dominate* a metaphor” (Kövecses 2010: 140, italics is mine). The token frequency of each linguistic expression is given in square bracket.

#### 4.1.1. MARAH IS CONTAINED SUBSTANCE

This metaphor is shared between the corpus and lexical approaches (§3.1.11). It is the most salient one in the corpus dataset but sits at rank 11 in the lexical dataset (*Table 1*). Below are the mappings and the metaphorical expressions for the CONTAINED SUBSTANCE metaphor.

expelling/releasing/channelling substance out (at others) → expressing anger (type=30; token=87) EXP *melampiaskan* MARAH ‘EXP *gushes out* anger’ [25]; *pelampiasan*

MARAH ‘gushing out of anger’ [11]; **luapan** MARAH ‘overflow of anger’ [7]; **menumpahkan** MARAH ‘pour out/spill anger’ [6]; MARAH **keluar** ‘anger exits/gets out’ [4]; MARAH **dilampiaskan** ‘anger be gushed out’ [3]; **melontarkan** MARAH ‘hurl/throw anger’ [2]; **memuntahkan** MARAH ‘vomit up anger’ [2]; EXP **lampiaskan** MARAH ‘EXP gushes out anger’ [2]; EXP **mengeluarkan** MARAH ‘EXP excretes/brings out anger’ [2]; MARAH **disalurkan** ‘anger be channelled’ [2]; MARAH **dituangkan dalam** STATE/UTTR ‘anger be poured into state/utterance’ [2]; MARAH **tersalurkan** ‘anger be channelled’ [2]; **keluar** MARAH ‘anger exits/gets out’ [1]; **melemparkan** MARAH ‘throw/hurl anger’ [1]; **menerbangkan** MARAH ‘cause anger to fly’ [1]; **mengalihkan** MARAH ‘divert the flow of anger’ [1]; **ngelampiasin** MARAH ‘gush out anger’ [1]; **salurkan** MARAH ke TARGET ‘channel anger to TARGET’ [1]; **tumpahan** MARAH ‘spill of anger’ [1]; EXP **melimpahkan** MARAH ‘EXP brims over anger’ [1]; MARAH **dicurahkan pada** TARGET ‘anger be poured out at TARGET’ [1]; MARAH **mengalir** ‘anger flows’ [1]; MARAH **menunggu kesempatan untuk tumpah** ‘anger waits the opportunity to spill/pour out’ [1]; MARAH **tercurah** pada X ‘anger be poured out on X’ [1]; MARAH **terlontar dari mulut** ‘anger be hurled from the mouth’ [1]; MARAH **terpancar di wajah** ‘anger be spurted out at the face’ [1]; MARAH **tertumpah** ‘anger be spilled/poured out’ [1]; MARAH EXP **muntahkan** ‘anger that EXP vomits up’ [1]; **pandangan mata memancarkan** MARAH ‘the look of the eyes spurts out anger’ [1]

the presence of object in a location → experiencing anger (type=9; token=15) MARAH **ada dalam diri/otak** ‘anger exists inside the self/brain’ [4]; UTTR **berisi** MARAH ‘utterance contains anger’ [4]; **menempatkan** MARAH ke dalam STATE ‘place anger inside STATE’ [1]; mata **mengandung** MARAH ‘eyes contain anger’ [1]; MARAH **bercokol di hati** ‘anger sits/squats at the liver’ [1]; MARAH **bersarang di dalam jiwa** ‘anger nests inside the soul’ [1]; MARAH **bersemayam di pikiran** ‘anger sits on a throne inside the thought’ [1]; MARAH **mengendap** ‘anger solidifies’ [1]; MARAH **tersimpan di dalam batin** ‘anger be kept within the inner self’ [1]

increased fullness of the substance in the container → increased intensity (type=5; token=66) AGT VERB (dengan) **penuh** MARAH ‘agent acts with full of anger’ [25]; ACTION/UTTR/LOC/STATE **penuh** MARAH ‘ACTION/UTTR/LOC/STATE be full of anger’ [17]; BRP **penuh** MARAH ‘BRP be full of anger’ [12]; EXP **penuh** MARAH ‘EXP be full of anger’ [9]; EXP/mata **dipenuhi** MARAH ‘EXP/eyes be filled up with anger’ [3]

impeding flowing liquid → regulating anger (type=4; token=11) MARAH **terbendung** ‘anger be dammed/embanked’ [4]; **membendung** MARAH ‘dam up/embank anger’ [3]; MARAH **dibendung** ‘anger be dammed/embanked’ [3]; **melambatkan** MARAH ‘slow down anger’ [1]

source of the liquid → cause of anger (type=2; token=2) EVENT **menjadi sumber** MARAH ‘EVENT be the source of anger’ [1]; MARAH **bersumber dari pikiran** ‘anger be sourced from the thought’ [1]

substance becomes hard → intense anger (type=2; token=2) MARAH **mengeras dalam batin** ‘anger hardens inside the inner self’ [1]; **mengendapkan** MARAH ‘cause anger to solidify’ [1]

It is obvious that the corpus dataset has a much greater number of linguistic types and mappings compared to the lexical dataset. Despite this difference, the metaphor in both datasets equally

focuses on the externalisation/expression of ANGER since the metaphorical expressions of the mapping for this aspect are the most productive.

#### 4.1.2. MARAH IS A FIERCE, CAPTIVE ANIMAL

This metaphor is in the top two salient metaphors across the two approaches but differs in its main meaning focus. In the lexical dataset (§3.1.1), the predominant expressions highlight the aggressive behaviour of the animal (type=18). In the corpus dataset, the expressions predominantly evoke mapping for restraining the animal (type=20; token=146); this mapping is the least prominent in the lexical dataset (type=1).

restrained, fierce animal → anger

restraining entity → experiencer (or other states)

restraining the animal →; regulating anger (type=20; token=146) *menahan* MARAH ‘hold back/restrain anger’ [79]; *mengendalikan* MARAH ‘bridle anger’ [31]; MARAH *terkendali* ‘anger be bridled/controllable’ [10]; *mengontrol* MARAH ‘control anger’ [4]; *pengendalian* MARAH ‘bridling/restraining of anger’ [4]; *mengelola* MARAH ‘manage anger’ [2]; *tahan(lah)* MARAH ‘hold back/restrain anger’ [2]; MARAH *dikendalikan* ‘anger be bridled’ [2]; *kontrol* MARAH ‘control anger’ [1]; *mengatur* MARAH ‘manage anger’ [1]; *menjaga* MARAH ‘watch over anger’ [1]; *nahan* MARAH ‘hold back/restrain anger’ [1]; MARAH *dijinakkan* ‘anger be tamed/domesticated’ [1]; MARAH *dikekang* ‘anger be bridled’ [1]; MARAH *dikelola* ‘anger be managed’ [1]; MARAH *dipelihara* ‘anger be taken care of’ [1]; MARAH *ditahan* ‘anger be restrained/held back’ [1]; MARAH *tertahan-tahan di dada* ‘anger be held back/restrained inside the chest’ [1]; MARAH *tertahan* ‘anger be held back/restrained’ [1]; MARAH *tertahankan* ‘anger be held back/restrained’ [1]

unleashing a captive → expressing and losing control over anger (type=6; token=23)

*mengumbar* MARAH ‘cause anger let loose’ [10]; *melepas(kan)* MARAH ‘release/let go of anger’ [9]; *lepaskan* MARAH ‘release anger’ [1]; *pelepas* MARAH ‘releaser of anger’ [1]; MARAH *di luar kendali* ‘anger be out of the bridle/control’ [1]; MARAH EXP *umbar* ‘anger that EXP lets loose’ [1]

aggressive animal behaviour → aggressive anger behaviour (type=6; token=6) *takut*

*terhadap* MARAH ‘be scared of anger’ [1]; MARAH *liar* ‘anger be wild/untamed’ [1]; MARAH *mengerikan* ‘anger be scary/fierce’ [1]; MARAH *dan EMO berkecamuk dalam pikiran* ‘anger and EMO rage inside the thought’ [1]; MARAH *meliputi dengan ganas* ‘anger encloses (EXP) with fierce’ [1]; MARAH *yang berkecamuk di hati* ‘anger that rages inside the liver’ [1]

being attacked by animal → experiencing effect of anger (type=4; token=4) DISEASE

*adalah siluman pemangsa* MARAH ‘DISEASE is the stealth predator of anger’ [1]; MARAH *mencengkam* ‘anger claws/grasps/grips’ [1]; MARAH *menggerogoti badan* ‘anger gnaws the body’ [1]; MARAH *merayapi dada* ‘anger crawls/creep in the chest’ [1]

The difference in the main meaning focus of the same metaphor between the two approaches indicates that combining the different methods enriches the nuance in the highlighted aspect of a metaphor.

### 4.1.3. MARAH IS FIRE

Similar to the FIERCE, CAPTIVE ANIMAL metaphor, the ANGER IS FIRE metaphor is prominent in Indonesian in the lexical (*Table 1*) and corpus-based datasets (*Table 4*).

- fire → anger (type=2; token=12) (*api* MARAH ‘fire of anger’ [11]; MARAH *adalah api* ‘anger be fire’ [1])
- burning/burnt object → angry person
- fire intensity → anger level
- the increased degree of fire → the increased degree of anger intensity (type=13; token=45)  
*EXP terbakar (oleh)* MARAH ‘EXP be burnt down with/by anger’ [9]; MARAH *membakar (dada/jantung/ubun-ubun)* ‘anger burns (chest/heart/head crown)’ [9]; MARAH *membara* ‘anger be blazing/flaring up’ [8]; *EXP/dada dibakar (oleh)* MARAH ‘EXP/chest be burnt with anger’ [5]; *mengobarkan* MARAH ‘cause anger to flare up’ [4]; *membakar* MARAH ‘burn anger’ [3]; *berkobarlah* MARAH ‘anger flares up/ablazes’ [1]; *mengobar-ngobarkan* MARAH ‘cause anger to flare up (over and over)’ [1]; MARAH *berapi-api* ‘anger be fiery’ [1]; MARAH *berkobar-kobar* ‘anger flares up/be ablaze (over and over)’ [1]; MARAH *berkobar* ‘anger flares up/be ablaze’ [1]; MARAH *menyala-nyala* ‘anger flares up/flames’ [1]; MARAH *terbakar* ‘anger be burnt down’ [1]
- igniting fire → causing anger (type=8; token=62) *menyulut(kan)* MARAH ‘kindle/ignite anger’ [45]; *EXP tersulut* MARAH ‘EXP be set on fire of anger’ [4]; MARAH *tersulut* ‘anger be set on fire’ [4]; *memantik* MARAH ‘light up anger’ [3]; *menyalakan* MARAH ‘kindle/ignite anger’ [2]; *EVENT mencetuskan* MARAH ‘EVENT ignites/lights up anger’ [2]; *mematik* MARAH ‘light up anger’ [1]; *memercikkan* MARAH ‘spark anger’ [1]
- potential open fire → latent intensity (type=5; token=10) MARAH *menyala* ‘anger flames’ [4]; *nyala api* MARAH ‘flame of the fire of anger’ [2]; *percikan (api)* MARAH ‘spark (of the fire) of anger’ [2]; *bara* MARAH ‘embers/cinder of anger’ [1]; MARAH *seperti bara di balik sekam* ‘anger be like embers inside chaff’ [1]
- fire going out → ceasing anger (type=4; token=5) *memadamkan* MARAH ‘extinguish anger’ [2]; *menyiram api* MARAH ‘pour water over fire of anger’ [1]; MARAH *dipadamkan* ‘anger be extinguished’ [1]; MARAH *padam* ‘anger be extinguished’ [1]

The FIRE metaphor in the two approaches equally focuses on the intensity aspect, particularly the increased intensity of the fire given its greatest number of metaphorical expressions compared to the other mappings. However, if the token frequency of the mapping is considered, the FIRE metaphor predominantly captures the cause of ANGER (token=62).

### 4.1.4. MARAH IS WEAPON

The WEAPON metaphor is only identified in the corpus approach. The main meaning focus is directing/targeting ANGER to the wrongdoer or other people. In terms of the token frequency of the mapping, causation mapping is the most predominant. Despite the highest token of the causation mapping, its linguistic manifestation is less varied compared to the targeting ANGER mapping, having diverse types despite its lower token frequency.

- the wrongdoer or other people → target of expression of anger (type=10; token=53)  
*sasaran* MARAH ‘target of anger’ [37]; MARAH *ditujukan(nya) ke(pada)/terhadap* TARGET ‘anger be targeted/directed to(wards) TARGET’ [5]; *EXP mengarahkan* MARAH

*ke(pada) TARGET* ‘EXP directs anger to(wards) TARGET’ [3]; *PAT menjadi target MARAH* ‘PAT becomes target of anger’ [2]; *memberondong TARGET dengan MARAH* ‘fire off TARGET with anger’ [1]; *MARAH diarahkan ke dalam* ‘anger be targeted/directed inside’ [1]; *MARAH diarahkan kepada/untuk TARGET* ‘anger be targeted/directed to(wards) TARGET’ [1]; *MARAH menemukan sasaran* ‘anger finds its target’ [1]; *MARAH tajam* ‘anger be sharp’ [1]; *MARAH tertuju kepada TARGET* ‘anger be directed to(wards) TARGET’ [1]

pulling the trigger → causing anger (type=5; token=110) *memicui MARAH* ‘trigger anger’ [101]; *MARAH dipicu (oleh) EVENT* ‘anger be triggered by an EVENT’ [6]; *pemicu MARAH* ‘(the) trigger of anger’ [1]; *picu MARAH* ‘trigger anger’ [1]; *MARAH menjadi amunisi* ‘anger becomes ammunition’ [1]

punishing with the weapon → retribution/avenge to wrongdoing (type=2; token=3) *membalas (X) dengan MARAH* ‘avenge (X) with anger’ [2]; *hukuman dengan MARAH* ‘punishment with anger’ [1]

weapon → anger (type=2; token=2) *EXP memperkuat diri dengan MARAH* ‘EXP strengthen him/herself with anger’ [1]; *MARAH adalah pedang bermata dua* ‘anger be a two-edged sword’ [1]

redirecting weapon to constructive goal → channelling anger (type=1; token=1) *MARAH diarahkan untuk menopang kinerja* ‘anger be directed to support work rate’ [1]

The last mapping refers to a non-prototypical model of ANGER, namely “constructive use” of ANGER (Lakoff and Kövecses 1987: 215).

#### 4.1.5. MARAH IS AN ADVERSARY/OPPONENT

The ADVERSARY/OPPONENT metaphor is absent in the lexical dataset. The metaphorical expressions evoke the PHYSICAL COMBAT frame (type=24; token=39). However, a closer investigation of the context of the data reveals that the hostile encounter is not always between the ANGER adversary and the self/experiencer. Construing ANGER as an adversary includes ANGER being the adversary for external, non-self-entity (predominantly victim of the directed ANGER) (33 instances of the total 54 tokens of this metaphor). There are twenty instances where the victim is the self. This variation in the combatant of ANGER indicates that the adversarial nature of ANGER can not only endanger the experiencers but also the social entities around them.

being the (defeated) victim of an attack → being the experiencer of anger (type=10; token=15) *PAT dijadikan/(men)jadi korban MARAH* ‘PAT become the victim of anger’ [4]; *korban MARAH* ‘victim of anger’ [2]; *MARAH menyerang EXP* ‘anger attacks EXP’ [2]; *diserang MARAH* ‘be attacked by anger’ [1]; *EMO kalah oleh MARAH* ‘EMO be conquered by anger’ [1]; *EXP diamuk MARAH* ‘EXP be an amok target of anger’ [1]; *EXP disanggah oleh MARAH Allah* ‘EXP be opposed with Allah’s anger’ [1]; *MARAH mengalahkan kata hati* ‘anger defeats inner voice (lit. the voice of the liver)’ [1]; *MARAH menyergap kalbu* ‘anger attacks the mind’ [1]; *PAT menjadi bulan-bulanan MARAH* ‘PAT be persistent victim of anger’ [1]

combating opponent → attempt to control anger (e.g., fighting, confronting) (type=9; token=15) *menghadapi MARAH* ‘confront anger’ [7]; *kompromi dengan MARAH* ‘compromise with anger’ [1]; *konfrontasi terhadap MARAH* ‘confrontation towards anger’ [1]; *melawan MARAH* ‘fight anger’ [1]; *perjuangan EXP melawan MARAH* ‘EXP’s struggle to fight anger’ [1]; *EMO dilawan dengan MARAH* ‘EMO be fought by

anger' [1]; *EMO, MARAH bergumul di hati* 'EMO and anger *wrestle* inside the liver' [1]; *EXP berhadapan dengan MARAH* 'EXP *confronts* anger' [1]; *EXP dihadapkan dengan MARAH* 'EXP *be confronted with* anger' [1]

being protected from the opponent → evading anger (type=8; token=10) *melindungi PAT dari MARAH* 'protect PAT from anger' [2]; *EXP selamat dari MARAH* 'EXP *be rescued from* anger' [2]; *luput dari MARAH* 'evade from anger' [1]; *membela PAT dari MARAH* 'defend PAT from anger' [1]; *mengamankan PAT dari MARAH* 'rescue/safeguard PAT from anger' [1]; *menjaga tangan dari MARAH* 'protect the hands from anger' [1]; *menyelamatkan PAT dari MARAH* 'rescue PAT from anger' [1]; *PAT diselamatkan dari MARAH* 'PAT *be rescued from* anger' [1]

winning over the opponent → managing anger (type=7; token=9) *kemenangan atas MARAH* 'victory over anger' [2]; *mengatasi MARAH* 'defeat anger' [2]; *membungkam MARAH* 'silence anger' [1]; *mengalahkan MARAH* 'defeat/beat anger' [1]; *menyingkirkan MARAH* 'eliminate anger' [1]; *MARAH diatasi* 'anger *be defeated*' [1]; *MARAH ditaklukkan* 'anger *be defeated*' [1]

potential danger of the opponent → potential effect of anger (type=3; token=5) *waspada dari/terhadap MARAH* 'be alert from/towards anger' [3]; *MARAH membahayakan PAT* 'anger *endangers* PAT' [1]; *MARAH mengancam STATE* 'anger *threatens/intimidates* STATE' [1]

The main meaning focus of the metaphor is the mapping EXPERIENCING ANGER IS GIVING IN/LOSING TO ANGER since it has the highest types and tokens even though the other mappings (i.e., the second up until the fourth ones) are relatively close in the number of their types and tokens. The semantic focus on losing correlates with the focus on being subjugated in the SUPERIOR metaphor (§4.1.15).

#### 4.1.6. INTENSITY IS VERTICALITY/HEIGHT

This metaphor is shared between the lexical (rank=10) and corpus approaches (rank=6) in the top-10 ranking. In the corpus dataset, this metaphor is evoked by LUs referring to several MN frame families, namely BEING AT A HIGH LOCATION, (CAUSED) UPWARD/DOWNWARD MOTION, and SCALE, which is incorporated as a frame role in the VERTICALITY frame. The predominant frame in the metaphor is the (CAUSED) UPWARD MOTION frame (type=12; token=61). The VERTICALITY metaphor has 22 types of metaphorical expression evoking six mappings. Together, all these frames and their LUs highlight the dynamics of the intensity as movement or position of the ANGER entity along the vertical scale.

vertical entity → anger

entity being at/going up to/reaching the highest end of the scale → highest intensity (type=9; token=55) *MARAH memuncak* 'anger *mounts/reaches its peak*' [38]; *puncak MARAH* 'peak/summit of anger' [4]; *MARAH sampai ke ubun-ubun* 'anger *reaches the crown of the head*' [4]; *level/tingkat MARAH tinggi* 'high level of anger' [2]; *MARAH mencapai puncak(nya)* 'anger *reaches its peak*' [2]; *MARAH sampai ke puncaknya* 'anger *reaches its peak*' [2]; *MARAH di ubun-ubun* 'anger *be at the crown of the head*' [1]; *MARAH memuncak di kepala* 'anger *mounts/reaches its peak in the head*' [1]; *MARAH sampai di batas* 'anger *reaches the limit*' [1]

(caused) upward motion → increasing intensity (type=7; token=14) *MARAH meningkat* 'anger *ascends/goes up*' [5]; *MARAH melonjak (di kepala)* 'anger *jumps/shoots up (at the head)*' [3]; *meningkatnya MARAH* 'raising/heightening of anger' [2]; *menaikkan*

MARAH ‘raise/lift anger’ [1]; **meningkatkan** MARAH ‘raise/heighten anger’ [1];  
**peningkatan** MARAH ‘increase of anger’ [1]; MARAH **naik** ‘anger rises’ [1]  
low on the scale → reduced intensity of anger (type=3; token=4) **menurunkan** MARAH  
‘lower anger’ [2]; MARAH **tingkat rendah** ‘low level anger’ [1]; MARAH **turun** ‘anger  
descends’ [1]  
verticality scale → intensity of anger (type=2; token=4) (**tingkat** MARAH ‘level of anger’  
[3]; **level** MARAH ‘level of anger’ [1])  
balancing the scale → maintaining anger (type=1; token=1) (**menyeimbangkan** EMO dan  
MARAH ‘to balance EMO and anger’ [1])

The two predominant mappings refer to (i) an entity reaching/being at the peak of the scale; and (ii) the lifted position of the entity along the scale, without implying whether such an upward motion of the ANGER entity would reach the peak.

#### 4.1.7. MARAH IS CONFINEMENT/IMPEDIMENT

This metaphor is only attested in the corpus dataset, realising 26 types and seven mappings. They are shown below.

impediment/confinement → anger

confined entity → angry person

being confined → experiencing anger (type=9; token=15) *EXP/hati diliputi* MARAH  
‘EXP/liver be enclosed with anger’ [5]; MARAH **meliputi** (EXP) ‘anger encloses (EXP)’  
[3]; **menutupi** EMO dengan MARAH ‘enclose EMO with anger’ [1]; *EXP disaluti* MARAH  
‘EXP be encased/wrapped with anger’ [1]; *GOD terjebak dalam* MARAH ‘GOD be  
entrapped inside anger’ [1]; MARAH **melingkupi** hati ‘anger encloses the liver’ [1];  
MARAH **mengganjal** di hati ‘anger gets clogged up/stucked in the liver’ [1]; MARAH  
**menyelubungi** jiwa ‘anger encloses/covers the soul’ [1]; *STATE menjerumuskan* PAT  
**dalam** MARAH ‘STATE plunges PAT into anger’ [1]

being/moving away from a confining/impeding location → controlling self not to be angry  
(type=8; token=14) **menghindari** MARAH ‘evade anger’ [6]; **mengendalikan diri dari**  
MARAH ‘restrain one’s self from anger’ [2]; **mengelakkan dari** MARAH ‘escape from  
anger’ [1]; **menghindarkan** MARAH ‘evade anger’ [1]; **mengontrol diri dari** MARAH  
‘control the self from anger’ [1]; *EXP terhindar dari* MARAH ‘EXP be evaded from  
anger’ [1]; MARAH **dihindari** ‘anger be evaded’ [1]; MARAH **dihindarkan** ‘anger be  
evaded’ [1]

escaping/getting over the confinement/impediment → ceasing anger (type=4; token=7)  
**membebaskan diri dari** MARAH ‘set one’s self free from anger’ [3]; *EXP/STATE bebas*  
**dari** MARAH ‘EXP/STATE be free from anger’ [2]; **lepas dari** MARAH ‘be free/released  
from anger’ [1]; **melarikan diri dari** MARAH ‘escape/flee from anger’ [1]

negatively affected motion → effect of anger (type=4; token=4) MARAH **menghalangi** diri  
‘anger impedes the self’ [1]; MARAH **menghambat** perkembangan ‘anger hampers  
development’ [1]; MARAH **menjadi penghalang** ‘anger becomes impediment’ [1];  
MARAH **menutup jalan** ‘anger blocks the road’ [1]

sunken confinement → anger (type=1; token=1) (**kubangan** MARAH ‘mud hole/buffalo  
wallow of anger’ [1])

The LUs of the metaphor evoke a variety of frames. Some of them are within the MOTION IMPEDIMENT frame family, namely CONFINEMENT and BARRIER (sub-cases of the MOTION-AFFECTING PROPERTIES OF THE LANDSCAPE frame), and RESTRAINTS (a sub-case of the MOTION-AFFECTING OBJECTS frame). Another frame is HIDING, especially the LUs referring to enclosing/encompassing the experiencer (that is generically related to the CONTAINMENT/BOUNDED-REGION frame). Several other tokens of LUs evoke the MOTION WITH RESPECT TO AN UNDESIRABLE ENTITY frame. Semantically, the metaphor highlights the undesirability and difficulty of being in a state of ANGER.

#### 4.1.8. MARAH IS A PRESSURISED SUBSTANCE IN A CONTAINER

This is another metaphor attested from the two methods (rank 6 in the lexical approach and rank 8 in the corpus approach). The overall theme of this metaphor is intensity and control. The mappings and metaphorical expressions are shown below.

pressurised substance → anger

container → angry person

(causing) explosion of container → (intentional) loss of control over anger (type=15;

token=38) *MARAH meledak* ‘anger explodes’ [11]; *ledakan (dari) MARAH* ‘explosion of anger’ [7]; *MARAH meledak-ledak* ‘anger explodes (over and over)’ [5];

*meledakkan MARAH (keluar)* ‘cause anger to explode out’ [2]; *MARAH meletup-letup*

‘anger explodes (over and over)’ [2]; *MARAH meletus* ‘anger erupts’ [2]; *letupan*

*MARAH* ‘explosion of anger’ [1]; *meledak MARAH* ‘anger explodes’ [1]; *meledaklah*

*MARAH* ‘anger explodes’ [1]; *meletupkan percikan api MARAH* ‘cause fire of anger to

explode/burst’ [1]; *EMO meledak dalam bentuk MARAH* ‘EMO explodes in the form of

anger’ [1]; *MARAH diledakkan* ‘anger be exploded/detonated’ [1]; *MARAH diletupkan*

‘anger be exploded/detonated’ [1]; *MARAH meledak seperti bom waktu* ‘anger

explodes like a time bomb’ [1]; *MARAH meletup* ‘anger explodes’ [1]

suppressing the contents from going out → controlling anger (type=3; token=5) *menekan*

*MARAH* ‘press down anger’ [2]; *MARAH ditekan* ‘anger be pressed down’ [2]; *MARAH*

*EXP tekan* ‘anger that EXP presses down on’ [1]

increased pressure of the substance to the container → increased intensity (type=3;

token=4) *MARAH menghentak-hentak* ‘anger pulsates/stamps’ [2]; *desakan MARAH*

‘push/shove of anger’ [1]; *MARAH menghentak* ‘anger pulsates/stamps’ [1]

One interesting difference between the PRESSURISED SUBSTANCE IN A CONTAINER metaphor from the two datasets is that in the lexical approach, the main meaning focus is on the (caused) increased pressure and substance. In contrast, the corpus dataset focuses on the loss of control, which is conceptualised as the explosion of the pressurised substance (see the greatest number of types and tokens for the explosion mapping). Moreover, the attempt at the control aspect is not attested in the lexical approach but only in the corpus approach (the fourth mapping).

#### 4.1.9. MARAH IS POSSESSION

This metaphor is a sub-case of the generic OBJECT EVENT-STRUCTURE metaphor, namely ATTRIBUTED STATES ARE POSSESSED OBJECTS (Lakoff and Johnson 1999: 195–196, 198). It realises sixteen types (49 tokens) manifesting six mappings. The key mappings in the metaphor are (i) ANGER is the possession and (ii) the angry person (or non-self-entity, such as utterances, events,

or even God) is the possessor or carrier of the object. The entailed mappings from these two are as follows:

- having/keeping/carrying possession → feeling/experiencing anger (type=6; token=25)
  - menyimpan* MARAH ‘keep/save/store anger’ [14]; *membawa* MARAH ‘carry anger’ [5];
  - memiliki* MARAH ‘possess anger’ [3]; MARAH *diwariskan oleh Y* ‘anger be bequeathed/inherited by Y’ [1]; MARAH EXP *miliki* ‘anger that EXP possesses’ [1];
  - TUHAN *punya* MARAH ‘GOD possesses anger’ [1]
- obtaining an object → being scolded (type=5; token=17) *mendapat(kan)* MARAH ‘obtain anger’ [10]; *menerima* MARAH ‘receive anger’ [4]; *kebagian* MARAH ‘obtain (a share/portion of) anger’ [1]; MARAH *diterima oleh TARGET* ‘anger be received by TARGET’ [1]; TARGET *diberi* MARAH ‘TARGET be given anger’ [1]
- giving object → expressing anger to others (type=3; token=4) *memberikan* MARAH ‘give anger’ [2]; EXP *menyampaikan* MARAH ‘EXP delivers anger’ [1]; TARGET *diserahi dengan* MARAH ‘TARGET be given with anger’ [1]
- losing/giving away possession → not experiencing anger (type=2; token=3) *membuang* MARAH ‘throw away anger’ [2]; MARAH *diambil dari hati* ‘anger be taken from the liver’ [1]

Most of the metaphorical expressions (i.e., 86% of the metaphor token) evoke the POSSESSION frame family (type=14; token=42), namely POSSESSION itself and TRANSFER SCENARIO, the roles of which also make use of the GAIN POSSESSION, LOSE POSSESSION, and GIVING frames. The remaining tokens are LUs evoking frames within the AFFECTED MOTION family such as BRINGING (e.g., *membawa* MARAH ‘carry anger’) and OBJECT PROPULSION (e.g., *membuang* MARAH ‘throw away anger’).

The inference from keeping the possession refers to the experience of ANGER, and when the possessor/self loses the ANGER possession, the self no longer feels angry. The sentential context of the pattern evoking the gaining and giving the possession is not necessarily causing the recipient to become angry akin to the giver. Instead, gaining/getting or being given ANGER from the possessor means that the recipient becomes the target of the angry person presumably because of the wrongdoing of the recipient/target of transfer (i.e., the recipient becomes the target of scolding, which may or may not lead to the recipient becoming angry). This inference is different from when the mapping is used in more positive emotions, such as HAPPINESS, where giving or getting happiness suggests causing someone to be happy (Stefanowitsch 2004; Rajeg 2019).

#### 4.1.10. INTENSITY IS QUANTITY

This metaphor is based on the QUANTITY frame and only attested in the corpus dataset. Lakoff and Kövecses (1987: 200) propose that ANGER has a quantitative aspect reflecting its intensity, which in turn is conceptualised as an amount. The metaphor is manifested by 21 metaphorical expressions representing six mappings.

- more amount of entity → intensified anger (type=11; token=16) *tambah* MARAH ‘increased anger’ [3]; *akumulasi* MARAH ‘accumulation of anger’ [2]; MARAH *berlebihan* ‘excessive anger’ [2]; MARAH *terakumulasi* ‘anger be accumulated’ [2]; *banyak* MARAH ‘many/much anger’ [1]; *bertambah* MARAH ‘anger increases/adds up’ [1]; *ekses dari* MARAH ‘excess of anger’ [1]; MARAH *berlebih* ‘excessive anger’ [1]; MARAH

*bertambah* ‘anger increases/adds up’ [1]; MARAH *bertimbun* ‘anger be in piles/heaps’ [1]; MARAH *menumpuk* ‘anger be in piles/heaps’ [1]  
 less amount of entity → less intense anger (type=4; token=4) *sisasisa* MARAH ‘remnant of anger’ [1]; MARAH *sedikit* ‘a little bit of anger’ [1]; MARAH *tersisa di mata* ‘anger remaining in the eyes’ [1]; MARAH *tertinggal* ‘left-over anger’ [1]  
 lessening the amount of entity → de-intensifying anger (type=2; token=4) *mengurangi* MARAH ‘reduce anger’ [3]; MARAH *dikurangi* ‘anger be reduced’ [1]  
 adding more amount of entity → intensifying anger (type=2; token=6) *menambah(kan)* MARAH ‘add (up) anger’ [5]; *menambah-nambah* MARAH ‘add (up) anger’ [1]  
 amount of entity → intensity of anger (type=2; token=2) *beberapa* MARAH ‘several anger’ [1]; *sebagian dari* MARAH ‘half of anger’ [1]

There are two perspectives in this metaphor, the increased and the lessening amount of the entity. The former highlights the intensification of ANGER while the latter is for the reduced intensity. There are more types and tokens that reflect the intensification of ANGER (type=13; token=22; see the first and the fourth mappings) than those for the reduced intensity (type=6; token=8; the second and the third mappings).

#### 4.1.11. MARAH IS HEATED FLUID IN A CONTAINER

This central metaphor is shared between the two approaches (rank=9 in the lexical approach, and rank=11 in the corpus approach). The metaphor has higher tokens, types, and mappings in the corpus dataset.

fluid → anger  
 fluid heat level → anger level  
 container with hot fluid → experiencer  
 heated fluid in container → high intensity of anger (type=13; token=32) MARAH *meluap* ‘anger boils over’ [11]; MARAH *meluap-luap* ‘anger boils over( and over)’ [5]; *gejolak* MARAH ‘(heated) bubbling over of anger’ [4]; *gelegak* MARAH ‘boiling over of anger’ [2]; *meluaplah* MARAH ‘anger boils over’ [2]; *gunung api* MARAH ‘volcano of anger’ [1]; *mendidihkan* MARAH ‘cause anger to boil’ [1]; *menggelegak* MARAH ‘anger boils/seethes (to bubbling)’ [1]; *dada bergejolak* MARAH ‘chest bubbles over (due to heat-up) with anger’ [1]; *EXP mendidih dalam* MARAH ‘EXP seethes/boils over in anger’ [1]; MARAH *bergejolak* ‘anger bubbles over (due to heat-up)’ [1]; MARAH *sampai pada titik didih* ‘anger reaches the boiling point’ [1]; MARAH *yang mendidih* ‘seething/boiling anger’ [1]  
 boiling over the fluid to overflow → intensifying and expressing anger (type=3; token=11) *meluapkan* MARAH ‘cause anger to boil over (to overflow)’ [9]; *luapkan* MARAH ‘cause anger to boil over (to overflow)’ [1]; *meruapkan* MARAH ‘cause anger to boil over (to overflow)’ [1]  
 evaporating liquid → reduced intensity of anger (type=1; token=1) MARAH *menguap* ‘anger evaporates/boils away’ [1]

In both datasets, the HEATED FLUID metaphor focuses on a heightened intensity of ANGER. One minor difference is, in the corpus dataset only, there is an attestation of a mapping for the ceasing of ANGER; this is conceptualised as an evaporating fluid (the last mapping above).

#### 4.1.12. MARAH IS A SUBMERGED ENTITY

On a more general level, the metaphor could be viewed as a sub-case of the generic metaphor EXISTENCE IS BEING HERE, which has a universal perceptual basis (i.e., we know that something exists when it is physically present and visible). The SUBMERGED ENTITY metaphor captures the way ANGER exists and it is not attested in the lexical approach. The key mapping is “submerged entity → anger”. From this mapping, two entailed mappings are postulated based on the semantics of the source frame LUs.

the presence/emergence/protruding of the entity → experiencing anger (type=5; token=25)  
*MARAH muncul* ‘anger appears’ [14]; *MARAH timbul* ‘anger emerges/surfaces’ [8];  
*timbulnya* *MARAH* ‘emergence/surfacing of anger’ [1]; *MARAH mencuat* ‘anger protrudes’ [1]; *MARAH terangkat* ‘anger be brought to the surface’ [1]  
forcing the entity to emerge → causing anger (type=3; token=68) *menimbulkan* *MARAH* ‘cause/bring anger to surface’ [62]; *memunculkan* *MARAH* ‘cause anger to appear/emerge’ [4]; *MARAH ditimbulkan* ‘anger be brought to the surface’ [2]

The metaphor differs slightly from the (UN)VEILED OBJECT metaphor (§4.1.17) whereby ANGER already exists and highlights the issue of whether the experiencer is keen to unveil ANGER to others or not (Rajeg 2019: 158). Compared to the other metaphors discussed so far, ANGER IS A SUBMERGED ENTITY is rather conventionalised in its linguistic realisation. It is manifested by a small number of types [8] making up the high token of the metaphor [93]; that is, only 8.6% of the metaphor’s tokens are of different types that are repeated many times.

#### 4.1.13. MARAH IS A SLEEPING ORGANISM

The SLEEPING ORGANISM metaphor is also attested in the lexical approach though at the lower rank (i.e., 17) (§3.1.17). The metaphor is based on the AWAKENING and the CAUSED UPWARD MOTION frames. The utilised aspect of the source frames is causing inactive/calm organisms to become awake/active/alert/aroused. The manner of awakening/alerting can be fishing for the organism via bait. In the target frame, this is mapped onto the cause of ANGER. This metaphor could be a pre-condition for the danger and fierceness of the organism that needs to be restrained as in the FIERCE, CAPTIVE ANIMAL metaphor (§4.1.2).

sleeping entity → anger  
fishing/awakening the calm entity → causing anger (type=4; token=82) *memancing* *MARAH* ‘fish for anger’ [50]; *membangkitkan* *MARAH* ‘cause anger to be awake/rouse’ [30];  
*bangkitkan* *MARAH* ‘cause anger to be awake/rouse’ [1]; *MARAH dibangkitkan* ‘anger be roused/awakened’ [1]  
awaken/alerted entity → anger near the limit (type=4; token=7) *MARAH bangkit* ‘anger wakes up/rouses’ [3]; *MARAH terpancing* ‘anger be fished’ [2]; *bangkitlah* *MARAH* ‘anger wakes up/rouses’ [1]; *bangkitnya* *MARAH* ‘(the) rousing/awakening of anger’ [1]

Like the SUBMERGED ENTITY, the SLEEPING ORGANISM highlights the way ANGER is brought about. The conventionalised lexical unit of this metaphor is based on the root *pancing* ‘lure a fish using a bite; to fish for sth.’ and *bangkit* ‘wake/get up’.

#### 4.1.14. MARAH IS A NATURAL FORCE

The metaphor occupies a nearly similar rank in the two datasets (i.e., 12 in the lexical approach and 14 in the corpus approach). This metaphor predominantly consists of LUs evoking the HARM frame family, particularly sub-cases of the DESTROYING frame, namely NATURAL DISASTER (type=8; token=36) and DESTRUCTIVE NATURAL PROCESS (type=3; token=4). The other minor frames are NON-TRANSLATIONAL MOTION (type=2; token=2) and WEATHER (type=1; token=1). The metaphorical expressions from these frames evoke six mappings.

(destructive) natural force → anger

destroyed entity → experiencer

amount of destructive force → degree of effect (type=7; token=10) *gelombang* MARAH ‘rolling waves/rollers of anger’ [4]; *atmosfer* MARAH ‘atmosphere of anger’ [1]; *gelora* MARAH ‘turbulence of anger’ [1]; *getar* MARAH ‘quaking/trembling of anger’ [1]; *getaran* MARAH ‘quaking/trembling of anger’ [1]; MARAH *bergelora di hati* ‘anger becomes great waves in the liver’ [1]; MARAH *bergemuruh* *bagaikan gemuruh suara laut* ‘anger thunders as if the roaring of the sea’ [1]

being destroyed → experiencing anger (type=3; token=4) *hati/EXP dilanda* MARAH ‘liver/EXP be ravaged by anger’ [2]; *menggelombangkan diri dalam* MARAH ‘roll-waving the self inside anger’ [1]; MARAH *melanda* ‘anger ravages’ [1]

reducing the amount of the disaster → causing anger to cease (type=2; token=18) *meredakan* MARAH ‘cause anger to abate/subside’ [17]; *menyurutkan* MARAH ‘cause anger to ebb’ [1]

ceasing amount of force → ceasing anger (type=2; token=11) MARAH *reda* ‘anger abates/subsides’ [9]; MARAH *mereda* ‘anger abates/subsides’ [2]

Our knowledge about natural forces (e.g., floods, waves, earthquakes) amongst others consists of their extreme impact, greatly affecting objects. The NATURAL FORCE metaphor in the token-based approach captures that aspect, focusing on the intense effect of the natural force, as evident by the productivity of this mapping. The NATURAL FORCE metaphor is a more specific way of construing the harmful effect of ANGER than the other HARM-related metaphor (§4.1.18) based on different frames within the same family.

#### 4.1.15. MARAH IS A SUPERIOR

The SUPERIOR (or SUBJUGATOR) metaphor is only attested in the corpus data and based on the mapping of ANGER onto the Subjugator role in the SERVITUDE frame (see also Kövecses 2000a: 21, 70). Kövecses (2000a: 71) argues that this metaphor involves asymmetric control-relation between the social inferior (the Subjugated role in the SERVITUDE frame), namely the self (or its associates), and the social superior (Subjugator), namely the emotion. The authority element is incorporated into the SERVITUDE frame from the structure of the AUTHORITY frame, which is the sub-case of the CONTROL frame. There are four mappings in this metaphor, evoked by nineteen types (32 tokens).

superior/subjugator → anger

being subjugated → effect of and losing control over anger (type=13; token=25) *BRP/EXP dikuasai (oleh)* MARAH ‘BRP/EXP be ruled/dominated by anger’ [7]; MARAH *menguasai (BRP/EXP)* ‘anger rules/dominates (BRP/EXP)’ [5]; *EXP mengikuti* MARAH ‘EXP follows anger’ [2]; *EXP menuruti* MARAH ‘EXP obeys anger’ [2]; *melayani* MARAH ‘serve anger’ [1]; *EXP dikendalikan dengan* MARAH ‘EXP be bridled/controlled by

anger' [1]; *EXP menyerah pada* MARAH 'EXP surrenders to anger' [1]; *fitrah tunduk di hadapan* MARAH 'human nature surrenders in the face of anger' [1]; *hidup dikendalikan oleh dorongan-dorongan* MARAH 'life be bridled/controlled by the push of anger' [1]; *kehidupan dijajah oleh* MARAH 'life be colonised by anger' [1]; MARAH *melepaskan pertimbangan* 'anger let loose/release judgement/consideration' [1]; MARAH *memaksa* EXP ACTION 'anger compels EXP to do sth.' [1]; MARAH *memerintah* kejahatan 'anger commands/governs felony/crime' [1] exercising domination over the subjugator → managing anger (type=5; token=5) *kekuasaan atas* MARAH 'power/might/authority over anger' [1]; MARAH *taat kepada fitrah manusia* 'anger be obedient to human nature' [1]; MARAH *tunduk kepada akal* 'anger surrenders to/obeys the rational mind' [1]; MARAH EXP *kuasai* 'anger that EXP rules/dominates' [1]; MARAH yang *mengikuti* *fitrah manusia* 'anger that follows human nature' [1] inferior of anger → angry person (type=1; token=2) (*objek dari* MARAH 'object of anger' [2])

The metaphor focuses on the emotional effect of ANGER (e.g., being irrational). It is construed via the degree of control and power that the authority has over the subjugated. This aspect is manifested as the metaphor's predominant mapping. There is only a small number of types that evoke the self's attempt to manage ANGER (i.e., exercise/compromising control).

#### 4.1.16. MARAH IS A BIOLOGICAL ENTITY

The BIOLOGICAL ENTITY metaphor has relatively low tokens [18] and sits towards the bottom of the top-20 metaphor (rank 16). However, it is expressed by relatively varied metaphorical expressions (14 types out of 18 tokens) and elaborate mappings [7] as presented below.

the root/base/seed of an organism → anger as cause (type=4; token=4) *pangkal dari* EVENT *adalah* MARAH '(tree) base/root of EVENT is anger' [1]; EVENT *buntut dari* MARAH 'EVENT be the tail (i.e., effect) of anger' [1]; EVENT *tumbuh dari* MARAH 'EVENT grows from anger' [1]; EVENT *merupakan hasil dari* MARAH 'EVENT be the yield (i.e., effect) of anger' [1] fruits/yields of a plant → anger as effect (type=4; token=8) *menuai* MARAH 'harvest/reap anger' [4]; EVENT *berbuah* MARAH 'EVENT bears fruit as (i.e., results in) anger' [2]; *ekspresi X menghasilkan* MARAH 'X's expression yields anger' [1]; EMO *berkembang menjadi* MARAH 'EMO flowers into anger' [1] the seed/source of an organism → cause of anger (type=2; token=2) (*benih* MARAH 'seed of anger' [1]; *biang* MARAH 'dam/mother of anger' [1]) the growth/birth of the organism → the existence of anger (type=2; token=2) (*melahirkan* MARAH 'give birth to anger' [1]; *tumbuh* MARAH 'anger grows' [1]) plants creeping out → effect of anger (type=1; token=1) (MARAH *menjalar* 'anger creeps' [1]) fertilising the organism/plant → maintaining anger (type=1; token=1) (*memupuk* MARAH 'fertilise anger' [1])

No single mapping could be considered predominant. The metaphorical expressions utilise different components of the ORGANISM frame family (e.g., the PLANT LIFE CYCLE and ANIMATE ENTITY frames) to highlight different aspects of ANGER. ANGER can be considered as an effect, or

as a cause leading to another effect. The metaphor also includes expressions referring to the cause, existence, and effect of ANGER.

#### 4.1.17. MARAH IS AN (UN)VEILED OBJECT

This metaphor is attested in the two approaches and occupies the lower rank in the salience tables (rank 17 in the corpus approach, and rank 14 in the lexical one). ANGER is construed as an object that the experiencer has control over to be displayed (i.e., expressed for others to perceive), or keep it hidden, hence perceptually inaccessible by others. These two inferences, which are re-cast as the mappings in the metaphor, are based on the HIDING and CAUSE TO SEE frames.

(un)hidden object → anger

perception causer → experiencer

unveiling an object → expressing anger (type=9; token=25) *menunjukkan* MARAH ‘point out/display anger’ [12]; *memperlihatkan* MARAH ‘display/show anger’ [5]; *menampakkan* MARAH ‘show/display anger’ [2]; *melihatkan* MARAH ‘anger be shown (around)’ [1]; *mengungkap* MARAH ‘uncover/expose anger’ [1]; *menyiratkan* MARAH ‘show/display anger’ [1]; MARAH *ditunjukkan* ‘anger be pointed out/displayed’ [1]; MARAH *terekam kamera* ‘anger be captured by camera’ [1]; MARAH yang *diperlihatkan dari pandang mata* ‘anger displayed from the look of the eyes’ [1]  
hiding/protecting an object → suppressing anger (type=5; token=13) MARAH *dipendam* ‘anger be buried/hidden’ [4]; MARAH *terpendam* ‘anger be buried/hidden’ [4]; *memendam* MARAH ‘bury/hide anger’ [3]; MARAH *berlindung di balik sifat angkuh* ‘anger takes cover under arrogance’ [1]; MARAH EXP *pendam* ‘anger that EXP buries/hides’ [1]

The focus of this metaphor is on the externalisation or the “unveiling” of ANGER. It is shown by the higher type and token frequencies of this mapping compared to the hiding mapping. In the lexical approach (§3.1.14), however, the metaphor focuses on the suppression of ANGER (i.e., maintaining control by “hiding” the object). Overall, the (UN)VEILED OBJECT metaphor highlights the control and expression of ANGER.

#### 4.1.18. MARAH IS PHYSICAL CONTACT/HARM

The CONTACT/HARM metaphor is also attested in the lexical approach and ranks in the top-3 of the salience table (*Table 1*), not in the corpus-based salience table. The metaphorical expressions evoking the PHYSICAL HARM frame capture the effect of ANGER. It impacts both the experiencer and other entities that become the target of the angry person, especially when the Harmed Entity role of the frame is filled with entities other than the experiencer of ANGER. The following mappings are postulated for the metaphor.

cause of harm → anger

harmed entity → experiencer or others

harmful effect (at others) → effect of anger (type=8; token=12) TARGET *kena* MARAH ‘TARGET get hit with anger’ [4]; TARGET *terkena* MARAH ‘TARGET gets hit with anger’ [2]; *daya rusak* MARAH ‘destructive power of anger’ [1]; MARAH *mematikan benih* ‘anger kills the seed’ [1]; MARAH *memecah-belah kerukunan* ‘anger smashes harmony to pieces’ [1]; MARAH *merusak Indonesia* ‘anger damages Indonesia’ [1];

*TARGET (tidak) tahan terhadap MARAH* ‘TARGET (does not) endures anger’ [1];  
*TARGET kena imbas MARAH* ‘TARGET be impacted by anger’ [1]  
 physical harm → experiencing anger (type=6; token=8) *hati terasa sakit* ‘the liver feels hurt (i.e., I am hurted)’ [2]; *MARAH mendera (EXP)* ‘anger whips (EXP)’ [2]; *EXP didera MARAH* ‘EXP be whipped by anger’ [1]; *MARAH menimbulkan luka hati* ‘anger causes wound of the liver’ [1]; *MARAH menyebabkan kerusakan pada tubuh* ‘anger causes damage to the body’ [1]; *MARAH adalah rasa yang mengobrak-abrik jiwa* ‘anger be a feeling that puts the soul in total disorder’ [1]

In Kövecses’s (2000a) FORCE-DYNAMIC system, the metaphor highlights the part where the experience of ANGER leads to the experiencer’s responses (e.g., directing the harm at others). This aspect is also an important part of the ANGER IS A NATURAL FORCE, ANGER IS A SUBJUGATOR, and ANGER IS A WEAPON metaphor.

The difference between the two approaches for this metaphor is in the main meaning focus. The predominant types in the lexical approach focus on the cause of ANGER. The expressions referring to physical touching or harm are used in the context of harming the candidate experiencer (i.e., causing the candidate experiencer to be angry) (§3.1.3). In the corpus approach, however, the physical harm expressions are used to show the harmful effect when experiencing ANGER and when targeting that effect on others.

#### 4.1.19. INTENSITY IS LUMINOSITY

Amongst the metaphors in the bottom five of the corpus-based salience table (Table 4), INTENSITY IS LUMINOSITY has the highest token (52) but also the lowest types (5) and mappings (3). The metaphor is not identified in the lexical approach. Below are the mappings of the metaphor.

light source → anger  
 light level → anger level  
 reducing the level of light → reducing anger (type=5; token=52) *meredam(kan) MARAH* ‘dim anger’ [41]; *MARAH diredam* ‘anger be dimmed’ [7]; *redam(lah) MARAH* ‘(go) dim anger’ [2]; *redup MARAH* ‘anger fades away’ [1]; *MARAH teredam* ‘anger be dimmed’ [1]

The metaphor is based on LUs evoking the DARKNESS frame, a perspective of the LUMINOSITY frame that characterises the amount of light from a light source. These frames are utilised in highlighting the ceasing intensity of ANGER. INTENSITY IS LUMINOSITY is related to the ANGER IS FIRE (§4.1.3) but captures ANGER’s intensity not via the degree of heat, but the amount of light.

#### 4.1.20. MARAH IS A PERSON

This metaphor could be viewed as a soft personification of ANGER and is not found in the lexical approach. It is based on LUs evoking features of the PERSON frame, which is a sub-case of the ANIMATE ENTITY and SENTIENT frames.

person → anger  
 associate → experiencer  
 inviting a person → causing anger (type=3; token=21) *mengundang MARAH* ‘invite anger’ [19]; *mendatangkan MARAH* ‘cause anger to come’ [1]; *ngundang MARAH* ‘invite anger’ [1]

being welcomed by / befriend a person → experiencing anger (type=3; token=4) X  
*disambut MARAH* ‘X be welcome by anger’ [2]; *bermain dengan MARAH* ‘play with anger’ [1]; *bersahabat dengan MARAH* ‘befriend anger’ [1]  
 dismissing the invited person → reducing anger (type=1; token=2) (*mengusir MARAH* ‘expel anger’ [2])

Unlike the other personifying metaphors (e.g., ADVERSARY or SUBJUGATOR), ANGER IS A PERSON captures the causation and diminishing of ANGER, rather than the intensity and effect of it. The metaphorical expressions refer to actions and objectives that animate as well as sentient/cognising entities such as a person typically does. These include welcoming, inviting, dismissing, and befriending or playing with someone. In a way, such actions represent ANGER as a superficially safe emotion to be with.

#### 4.2. Token-based salience: Metonymy

The corpus analysis of the metonymy now includes the token frequencies for the metonymies and their type frequencies. These metonymies are rank-ordered in Table 5 by the Aggregate values (i.e., the sums of the values in the “% of all tokens” and “% of all types” columns for each metonymy).

Table 5. Conceptual metonymies for ANGER (token-based, corpus approach).

Metonymy	Tokens	% of all tokens	Types	% of all types	Aggregate
STRONG/AGGRESSIVE VERBAL BEHAVIOUR FOR MARAH	51	44.3	31	38.8	83.1
AGGRESSIVE VISUAL BEHAVIOUR FOR MARAH	29	25.2	21	26.2	51.4
REDNESS IN THE FACIAL AREA FOR MARAH	17	14.8	12	15.0	29.8
INTERNAL PRESSURE FOR MARAH	9	7.8	7	8.8	16.6
BODY HEAT FOR MARAH	2	1.7	2	2.5	4.2
VIOLENT FRUSTRATED BEHAVIOUR FOR MARAH	2	1.7	2	2.5	4.2
CRYING FOR MARAH	1	0.9	1	1.2	2.1
FOAMING AT THE MOUTH FOR MARAH	1	0.9	1	1.2	2.1
LIP/TEETH BITING/PRESSING FOR MARAH	1	0.9	1	1.2	2.1
INABILITY TO SPEAK FOR MARAH	1	0.9	1	1.2	2.1
INABILITY TO SEE FOR MARAH	1	0.9	1	1.2	2.1
<b>TOTAL</b>	<b>115</b>	<b>100.0%</b>	<b>80</b>	<b>100.0%</b>	<b>200</b>

From the two datasets, there is a total of eleven unique metonymies, and most of them (i.e., eight metonymies [72.7%]) are shared. This suggests a rather consistent metonymic construal for ANGER, especially the STRONG/AGGRESSIVE VERBAL BEHAVIOUR FOR ANGER that tops the metonymy tables in the two approaches. This prominent metonymy corroborates Heider’s (1991: 80, 116) finding that verbal abuse is one kind of reaction of ANGER (in addition to physical violence). The metonymies attested only in the lexical approach are BREATHING DIFFICULTY FOR ANGER, STANDING BODY HAIR FOR ANGER, CARESSING THE CHEST FOR ANGER, and CLENCHING FIST FOR ANGER. Meanwhile, those identified only in the corpus are CRYING FOR ANGER, FOAMING AT THE MOUTH FOR ANGER, and INABILITY TO SPEAK FOR ANGER.

#### 4.2.1. STRONG/AGGRESSIVE VERBAL BEHAVIOUR FOR ANGER

- *nada* MARAH ‘tone of anger’ [8]; *suara* MARAH ‘voice of anger (i.e., angry voice)’ [4]; *kata* EXP dengan MARAH ‘EXP’s word with anger’ [3]; *menyuarakan* MARAH ‘voice anger’ [3]; *teriakan* MARAH ‘scream of anger’ [3]; EXP *berteriak* MARAH ‘EXP screams angrily’ [3]; *kata-kata* MARAH ‘words of anger’ [2]; *surat* MARAH ‘letter of anger’ [2]; *bentak* EXP dengan MARAH ‘EXP scolds with anger’ [1]; *dibantah* dengan MARAH ‘be disputed with anger’ [1]; *memaki* dengan MARAH ‘curse with anger’ [1]; *membentak* TARGET dengan MARAH ‘scold TARGET with anger’ [1]; *menanggapi* dengan MARAH ‘response with anger’ [1]; *menjawab* dengan MARAH ‘answer/response with anger’ [1]; *menolak* dengan MARAH ‘reject with anger’ [1]; *menyebut* dengan MARAH ‘mention with anger’ [1]; *nada suara tinggi* ‘high-tone voice’ [1]; *pekik* MARAH ‘scream of anger’ [1]; *raung* EXP *pecah* membawa MARAH ‘EXP’s howl breaks carrying anger’ [1]; *teriak* MARAH ‘scream of anger’ [1]; *ucapan* MARAH ‘angry utterance’ [1]; EXP *bergemuruh* ‘EXP thunders (as if the roaring of the sea)’ [1]; EXP *berkoar-koar* penuh MARAH ‘EXP shouts full of anger’ [1]; EXP *berseru* MARAH ‘EXP shouts angrily’ [1]; EXP *berteriak kata* MARAH ‘EXP screams the word of anger’ [1]; EXP *berteriak-teriak* MARAH ‘EXP screams angrily’ [1]; EXP *menaikkan suara* ‘EXP raises the voice’ [1]; kalau MARAH *memaki-maki* ‘when angry (EXP) curses’ [1]; MARAH *diucapkan* ‘anger be articulated’ [1]; *suara cewek kalau* MARAH jadi *gembret* ‘sound of angry woman becomes cracking’ [1]; *suara* MARAH *terdengar lebih melengking* ‘voice of anger sounds shrill’ [1]

This metonymy is the most salient in both approaches, having 43 and 31 types in the lexical and corpus approaches respectively.

#### 4.2.2. AGGRESSIVE VISUAL BEHAVIOUR FOR ANGER

- *wajah* MARAH ‘angry face’ [5]; *ekspresi* MARAH ‘(facial) expression of anger’ [3]; *pandangan* MARAH ‘angry gaze’ [2]; *muka/wajah terlihat* MARAH ‘face appears angry’ [2]; *memandang* dengan MARAH ‘stare with anger’ [1]; *membalas pandangan mata* dengan MARAH ‘return the look of the eye with anger’ [1]; *menoleh* dengan MARAH ‘look with anger’ [1]; *pandangan mata* EXP *liar* ‘EXP’s wild eye gaze’ [1]; *sorot mata bersinar* penuh keberanian dan MARAH ‘shining eye glance full of bravery and anger’ [1]; *sorot* MARAH ‘glance of anger (i.e., angry glance)’ [1]; *tatapan* MARAH ‘look of anger (i.e., angry look)’ [1]; *terbakar oleh sorot* mata EXP yang sedang MARAH ‘be burnt by the glance of angry EXP’ [1]; EXP *memandang* MARAH ‘EXP stares angrily’ [1]; EXP *menatap tajam* penuh MARAH ‘EXP stares sharply full of anger’ [1]; mata *melebar* MARAH ‘eyes expand angrily’ [1]; mata *menyorot* MARAH ‘eyes glance angrily’ [1]; MARAH *dari wajah* ‘anger from the face’ [1]; MARAH *terlihat pada* muka ‘anger be seen at the face’ [1]; MARAH diperlihatkan pada *pandang* mata ‘anger be shown in the look of the eyes’ [1]; VERB EXP dengan *mata tajam* penuh MARAH ‘EXP acts with sharp eyes full of anger’ [1]; *wajah campur aduk dari* EMO dan MARAH ‘face be a mixture of EMO and anger’ [1]

This is another metonymy that is also salient in the two approaches, ranked in the top 3. However, the corpus dataset reveals a significantly greater number of types [21] compared to the lexical dataset [7] ( $p_{\text{Binomial two-tailed}} < 0.05$ ). From the metonymic expressions above, one does not contain

the target term MARAH but the sentential context in (4) clearly indicates that such expression has to do with ANGER.

- (4) *Pandangan mata-nya liar dan mem-(p)ancar-kan amarah yang me-luap.*  
 gaze eyes-3POSS wild and AV-spurt.out-CAUS anger REL AV-boil.over  
 ‘H(is/er) gaze was wild and spurted out boiling-over anger.’ (ind\_mixed\_2012\_1M:  
 575480)

In this example, the eyes both spurt out boiled-over ANGER and show wild gaze.

#### 4.2.3. REDNESS IN THE FACIAL AREA FOR ANGER

- *mata/muka/wajah memerah menahan MARAH* ‘eyes/face *red*(s) holding back anger’ [4]; *mata/wajah seakan-akan/bagaikan menyala (karena MARAH)* ‘eyes/face be as if *flaming* because of anger’ [2]; *wajah/mata memerah karena (EMO bercampur) MARAH* ‘face/eyes *red*(s) because (EMO be mixed with) anger’ [2]; *wajah merah melambangkan MARAH* ‘*red* face symbolises anger’ [1]; *EXP MARAH hingga pipi seperti merahnya buah delima* ‘EXP be angry until the cheeks *be like the redness of pomegranate*’ [1]; *EXP MARAH hingga wajah terlihat merah padam* ‘EXP be angry until the face looks *scarlet red*’ [1]; *mata merah menyala tanda MARAH* ‘eyes be *flaming red* signing anger’ [1]; *MARAH membuat wajah menjadi merah* ‘anger makes the face become *reddish*’ [1]; *pandangan mata yang merah penuh MARAH* ‘eye gaze that be *red* full of anger’ [1]; *wajah merah penuh MARAH* ‘*red* face full of anger’ [1]; *wajah menjadi kemerah-merahan karena nyala api MARAH* ‘face become *reddish* because of the flame of anger’ [1]; *wajah yang merah oleh MARAH* ‘face that be *red* by anger’ [1]

This metonymy has a greater number of types (and thus ranked higher) in the corpus dataset (12 types; rank=3) than in the lexical one (3 types; rank=7) ( $p_{\text{Binomial two-tailed}} < 0.05$ ). The metonymic expressions indicate that ANGER causes such physiological effects of redness in the facial area of the experiencer.

#### 4.2.4. INTERNAL PRESSURE FOR ANGER

- *mulut/badan/urat-urat bergetar oleh/karena MARAH* ‘mouth/body/nerves *tremble* with anger’ [3]; *AGT membuat saraf menegang* ‘AGT causes the *nerves to tense*’ [1]; *jantung serasa meledak karena MARAH* ‘heart feels *exploding* because of anger’ [1]; *rahang mengeras karena desakan MARAH* ‘jaw *hardens* because of anger push’ [1]; *suara terdengar bergetar antara sedih dan MARAH* ‘voice sounds *trembling* between sadness and anger’ [1]; *tubuh menjadi gemetar oleh MARAH* ‘body becomes *trembling* because of anger’ [1]; *urat-urat timbul karena MARAH* ‘nerves *emerge* with anger’ [1]

The INTERNAL PRESSURE metonymy shares the same number of types between the two datasets (7 types in the corpus dataset, and 7 types in the lexical one). The internal pressure predominantly goes with trembling body parts and voice.

#### 4.2.5. BODY HEAT FOR ANGER

- *keringat* MARAH ‘sweat of anger’ [1]; *tingginya suhu tensi* MARAH ‘high-temperature tension of anger’ [1]

The BODY HEAT metonymy is less productive in terms of its type in the corpus dataset (2 types) compared to the lexical one (7 types).

#### 4.2.6. VIOLENT FRUSTRATED BEHAVIOUR FOR ANGER

- *EXP mengamuk* ‘EXP runs amok’ [1]; *EXP tak dapat menguasai diri* ‘EXP be unable to master him/herself’ [1]

This metonymy appears to be less prominent in the corpus dataset than in the lexical one in terms of the number of metonymic expressions and, by consequence, the ranking. In the lexical approach, it is evoked by 13 expressions (rank=2), which is significantly greater than the number of expressions in the corpus dataset (2 types; rank=6) ( $p_{\text{Binomial two-tailed}} < 0.01$ ).

#### 4.2.7. Other singleton metonymies

There are five metonymies that only have a single type; they are (i) CRYING FOR ANGER (*tangis* *EXP adalah MARAH* ‘EXP’s tears is anger’), (ii) FOAMING AT THE MOUTH FOR ANGER (*berbusa di mulut dengan MARAH* ‘foaming in the mouth with anger’), (iii) LIP/TEETH BITING/PRESSING FOR ANGER (*EXP menggartakkan gigi* ‘EXP gnashes the teeth’), (iv) INABILITY TO SPEAK FOR ANGER (*EXP tidak dapat mengatakan sesuatu oleh MARAH* ‘EXP cannot say anything with anger’), and (v) INABILITY TO SEE FOR ANGER (*MARAH buta* ‘blind anger’). Two metonymies have a greater number of types in the lexical dataset, namely INABILITY TO SEE FOR ANGER [3] and LIP/TEETH BITING/PRESSING FOR ANGER [4].

### 4.3. Types of the metonymies (token-based dataset)

Of the eleven metonymies, six metonymies represent physiological responses (type=24; token=31), and five are of the social-communicative behaviour types (type=56; token=84).

Table 6. Two types of metonymies of ANGER (token-based dataset).

Social-communicative behaviour	Physiological response
STRONG/AGGRESSIVE VERBAL BEHAVIOUR FOR MARAH (type=31; token=51)	REDNESS IN THE FACIAL AREA FOR MARAH (type=12; token=17)
AGGRESSIVE VISUAL BEHAVIOUR FOR MARAH (type=21; token=29)	INTERNAL PRESSURE FOR MARAH (type=7; token=9)
VIOLENT FRUSTRATED BEHAVIOUR FOR MARAH (type=2; token=2)	BODY HEAT FOR MARAH (type=2; token=2)
CRYING FOR MARAH (type=1; token=1)	FOAMING AT THE MOUTH FOR MARAH (type=1; token=1)
INABILITY TO SPEAK FOR MARAH (type=1; token=1)	LIP/TEETH BITING/PRESSING FOR MARAH (type=1; token=1)
	INABILITY TO SEE FOR MARAH (type=1; token=1)
<b>TOTAL<sub>type</sub>=56; TOTAL<sub>token</sub>=84</b>	<b>TOTAL<sub>type</sub>=24; TOTAL<sub>token</sub>=31</b>

As in the lexical dataset (§3.3), the number of metonymies in the physiological response category is greater than the ones in the social-communicative behaviour. However, the social-communicative behaviour category in total still exhibits a significantly greater number of types ( $p_{\text{Binomial two-tailed}} < 0.001$ ) and tokens ( $p_{\text{Binomial two-tailed}} < 0.001$ ) than the physiological response

category. Therefore, the lexical and corpus-based approaches converge along these distributional aspects of the metonymies.

## 5. Comparison of the results in the lexical and corpus-based approaches

The following sub-sections summarise several points of quantitative and qualitative comparisons between the findings from the two approaches.

### 5.1. Differences in the number of conceptual metaphors

The obvious difference between the lexical and corpus-based approaches is the potential of the latter to provide a significantly greater number of conceptual metaphors (45 metaphors) than the former (19 metaphors) ( $X^2=10.56$ ,  $df=1$ ,  $p_{\text{goodness-of-fit}} < 0.01$ ).

From the total nineteen metaphors identified in the type-based, lexical approach (*Table 1*), 78.9% (i.e., fifteen metaphors) are also attested in the corpus, token-based approach (*Table 4*). These shared metaphors are: ANGER IS A CONTAINED SUBSTANCE, ANGER IS FIERCE, CAPTIVE ANIMAL, ANGER IS FIRE, INTENSITY OF ANGER IS VERTICALITY, ANGER IS PRESSURISED SUBSTANCE IN A CONTAINER, ANGER IS POSSESSION, ANGER IS HEATED FLUID IN A CONTAINER, ANGER IS A SLEEPING ORGANISM, ANGER IS NATURAL FORCE, ANGER IS (UN)VEILED OBJECT, ANGER IS PHYSICAL CONTACT/HARM, ANGER IS DISEASE, ANGER IS INSANITY, ANGER IS DARKNESS, and ANGER IS BITTERNESS. Of these shared metaphors, only eleven (55%) make it into the top 20 list in *Table 4*.

The four metaphors identified only in the lexical approach (ordered decreasingly by their salience) are (CAUSE OF) ANGER IS ANNOYANCE (11.6%; rank=7), ANGER IS A SUBSTANCE (7.7%; rank=13), DEGREE OF CONTROLLING ANGER IS THE SIZE OF PATIENCE AS A CONTAINER (6.9%; rank=15), and ANGER IS HEAT (6.9%; rank=16). The remaining 66.7% (30 types) of the token-based metaphors are absent from the lexical dataset, which is a significant difference ( $X^2=19.88$ ,  $df=1$ ,  $p_{\text{goodness-of-fit}} < 0.001$ ). The fact that (i) several metaphors are only attested in one of the two approaches and that (ii) the corpus-based approach offers a significantly higher likelihood to identify more metaphors showcases the call for combining the two approaches for more comprehensive coverage and nuances in the characterisation of a target domain.

### 5.2. Differences in the salience of the shared metaphors

Further quantitative differences can be inspected among the shared metaphors. Namely, they can differ in their salience values and thus ranking.

*Figure 1* visualises these differences.

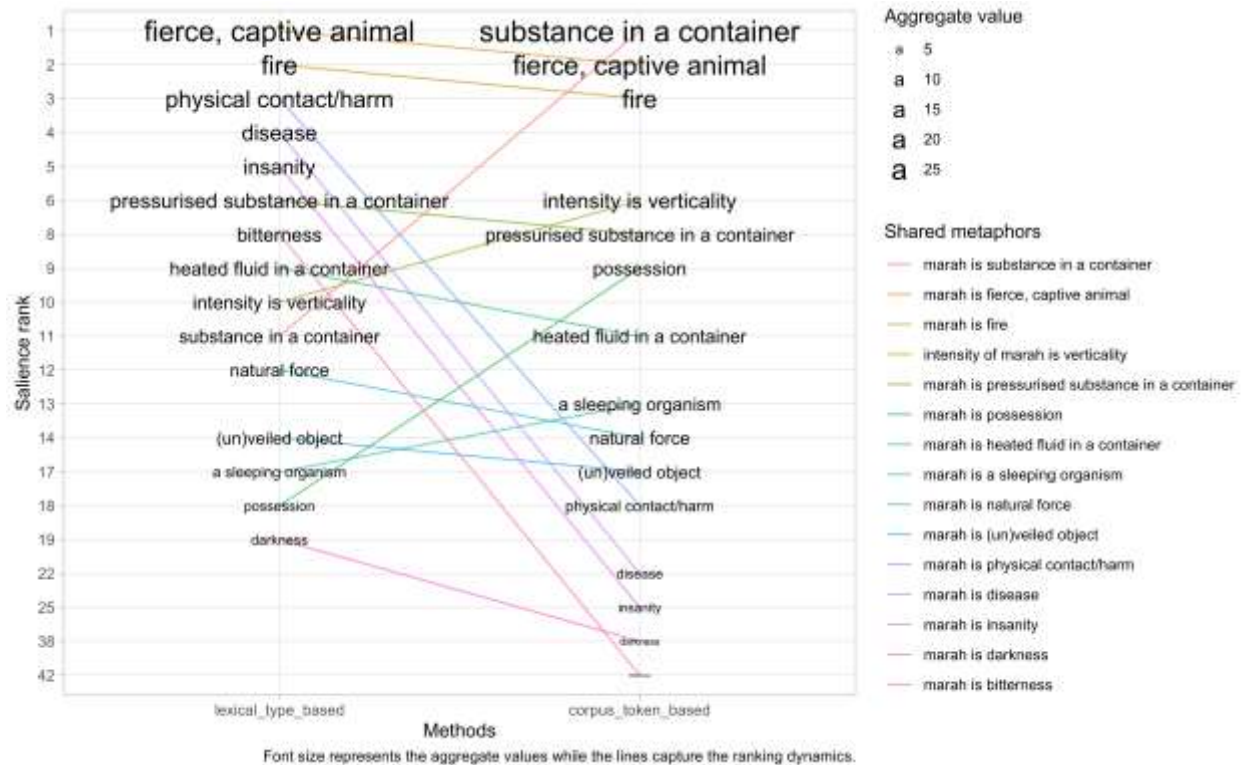


Figure 1. Comparison of ranking (y-axis) and salience (Aggregate value) of the shared metaphors between the two approaches/methods.

For instance, the SUBSTANCE IN A CONTAINER metaphor is the most salient in the corpus, token-based approach while the same metaphor is only at the rank 11 in the type-based approach. A similar increase in salience from the type-based approach is shown by the POSSESSION and INTENSITY IS VERTICALITY metaphors in the corpus, token-based approach. In addition to salience, and hence, ranking increase, there are categorically specific metaphors whose salience values drastically drop in the corpus, token-based data (i.e., from within the top-10 position in the type-based list to outside the top-10 position in the token-based data); they are PHYSICAL CONTACT/HARM (from the rank 3 to 18), DISEASE (from the rank 4 to 22), INSANITY (from the rank 5 to 25), and BITTERNESS (from the rank 8 to 42). Finally,

Figure 1 also shows that FIERCE, CAPTIVE ANIMAL and FIRE are consistently amongst the most salient metaphors in the two approaches, suggesting their centrality in the cognitive model of ANGER in Indonesian; there are also metaphors that relatively consistently occupy the lower half of the top-20 table (e.g., NATURAL FORCE, SLEEPING ORGANISM, and (UN)VEILED OBJECT).

Empty labels at rank 4 and 5 in the corpus-based panel in

Figure 1 are filled with different metaphors not attested in the type-based, lexical approach, namely WEAPON and ADVERSARY/OPPONENT respectively. What is qualitatively interesting is that the focus on overall control over the emotion presented by the INSANITY metaphor in the type-based approach is also captured using a different image by the ADVERSARY/OPPONENT metaphor. Similarly, additional metaphor at rank 10 on the corpus, token-based panel attested only in the corpus-based approach, namely INTENSITY IS QUANTITY, expands the intensity focus together with other metaphors in the top-10 list (i.e., VERTICALITY and SUBSTANCE-related metaphors). The next

section discusses such a qualitative difference in main meaning focus, due to quantitative difference (i.e., mapping productivity), between the shared metaphor.

### 5.3. Differences in the main meaning focus of the shared metaphors

Even though the two approaches do converge for several shared metaphors, the main meaning focus of these metaphors can differ. This is summarised in *Table 7* for the shared metaphors in the top 20 list.

*Table 7.* Main meaning focus of the shared metaphors in the top 20 list between the two approaches.

Metaphor	Lexical, type-based	Corpus, token-based
FIERCE, CAPTIVE ANIMAL	aggressiveness of the angry person (§3.1.1)	regulating anger (i.e., restraining the animal) (§4.1.2)
PHYSICAL CONTACT/HARM	cause of the anger (§3.1.3)	harmful effect to the experiencer/angry person and to the others/external target (§4.1.18)
PRESSURISED SUBSTANCE IN CONTAINER	causing increased pressure and substance (§3.1.6)	loss of control (i.e., exploding container) (§4.1.8)
(UN)VEILED OBJECT	regulating anger (i.e., concealing the object) (§3.1.14)	expressing anger (i.e., unveiling the object) (§4.1.17)

Such qualitative differences stem from quantitative assessment of the productivity of the metaphorical mappings for the metaphors (i.e., the number of different linguistic expressions manifesting a given mapping) (Kövecses 2010: 140). Another related difference between the two approaches is that for a given shared metaphor, certain mapping is only identified in one of the approaches. This could surely affect the salience of the metaphor. For instance, the mapping for the controlling of the substance/emotion is not identified for the PRESSURISED SUBSTANCE metaphor in the lexical approach but only in the corpus approach. The same is true for the HEATED FLUID metaphor, in which an additional mapping unidentified in the lexical approach is present in the corpus approach, namely the ceasing (i.e., decreased intensity of) ANGER construed as the evaporating liquid. Overall, the two approaches should be viewed as complementary in enriching the characterisation of the main meaning focus of a given metaphor.

### 5.4. Comparison of the metonymies

As to the metonymy, most (i.e., 72.73%) of the eleven metonymies from the two approaches combined are shared (as discussed in §4.2); they are STRONG/AGGRESSIVE VERBAL BEHAVIOUR FOR ANGER, AGGRESSIVE VISUAL BEHAVIOUR FOR ANGER, REDNESS IN THE FACIAL AREA FOR ANGER, INTERNAL PRESSURE FOR ANGER, BODY HEAT FOR ANGER, VIOLENT FRUSTRATED BEHAVIOUR FOR ANGER, LIP/TEETH BITING/PRESSING FOR ANGER, and VISUAL INTERFERENCE FOR ANGER. This high percentage of shared metonymies indicates some convergences between the two approaches in terms of the **types** and the salient metonymies for ANGER. Like the metaphor data, there are metonymies that appear only in the lexical, type-based data (i.e., BREATHING DIFFICULTY FOR ANGER, STANDING BODY HAIR FOR ANGER, CARESSING THE CHEST FOR ANGER, and CLENCHING FIST FOR ANGER) and in the corpus, token-based data (i.e., CRYING FOR ANGER, FOAMING AT THE MOUTH FOR ANGER, and INABILITY TO SPEAK FOR ANGER).

As in the salience comparison of the metaphors (§5.2), the metonymy also shows dynamics in their salience ranking across the two approaches as visualised in

*Figure 2.*

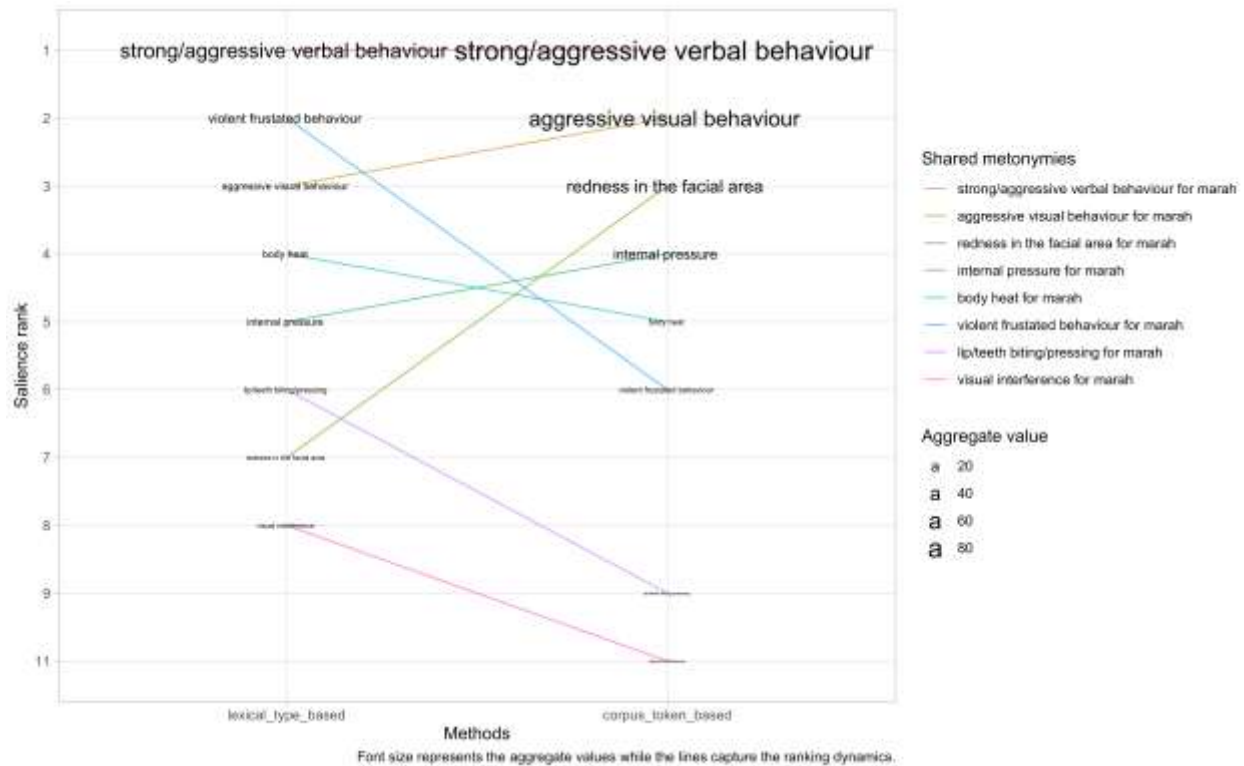


Figure 2. Comparison of ranking (y-axis) and salience (Aggregate value) of the shared metonymies between the two approaches/methods.

It is shown that STRONG/AGGRESSIVE VERBAL BEHAVIOUR FOR ANGER tops the metonymy tables in the two approaches but has a higher salience value in the corpus, token-based approach (cf. the different font sizes). The prominence of STRONG/AGGRESSIVE VERBAL BEHAVIOUR FOR ANGER metonymy corroborates Heider's (1991: 80, 116) finding that verbal abuse is one kind of reaction of anger (in addition to physical violence).

Another interesting dynamic is the noticeable rise of salience and ranking of the REDNESS IN THE FACIAL AREA FOR ANGER metonymy in the corpus, token-based data. Together with the second-most prominent AGGRESSIVE VISUAL BEHAVIOUR FOR ANGER metonymy, REDNESS IN THE FACIAL AREA highlights the visibility of ANGER in the corpus, token-based data. Lastly,

Figure 2 also shows a drop in ranking and salience of metonymies in the corpus, token-based approach, namely VIOLENT FRUSTRATED BEHAVIOUR (the second most salient in the lexical, type-based approach), LIP/TEETH BITING/PRESSING, and VISUAL INTERFERENCE. In terms of the broader types of the metonymies, we have seen (in §3.3 and §4.3) that the Social-Communicative Behaviour type is still more prominent (in terms of the number of metonymic expressions and token frequency) than the Physiological Response type, which, nevertheless, is represented by the higher number of metonymies.

## 6. Metonymical basis of ANGER metaphors

Three of the five physiology-based metonymies suggested by Lakoff and Kövecses (1987: 197) motivate the two principal metaphors for ANGER: ANGER IS HEAT and ANGER IS HEATED FLUID IN A CONTAINER (see Rajeg 2013: 211–213, for the quantitative evidence for the prominent status of these ANGER metaphors in Indonesian). These three metonymies are BODY HEAT FOR ANGER (§4.2.5 and §3.2.4), INTERNAL PRESSURE FOR ANGER (§3.2.5 and §4.2.4), and REDNESS IN THE FACIAL AREA FOR ANGER (§3.2.7 and §4.2.3). In addition to these, there are other physiology-related metonymies (

*Table 3 and*

*Table 6*) motivating other metaphors. The list below shows the relevant metaphors (from the two approaches) motivated by the physiology-based metonymies.

- BODY HEAT FOR ANGER could motivate these metaphors:
  - ANGER IS HEAT
  - ANGER IS FIRE
  - ANGER IS HEATED FLUID IN A CONTAINER
  - INTENSITY IS TEMPERATURE (corpus dataset; outside the top-20 salient metaphors)

The HEATED FLUID IN A CONTAINER may also be motivated by the INTERNAL PRESSURE FOR ANGER metonymy (Lakoff and Kövecses 1987: 197), given that internal heat pressure could trigger the boiling over of the heated fluid.

- REDNESS IN THE FACIAL AREA FOR ANGER could motivate these metaphors:
  - ANGER IS FIRE
  - INTENSITY IS LUMINOSITY
- CARESSING THE CHEST FOR ANGER (§3.2.11), LIP/TEETH BITING/PRESSING FOR ANGER (§3.2.6), INTERNAL PRESSURE FOR ANGER, and BREATHING DIFFICULTY FOR ANGER (§3.2.9) could motivate these metaphors:
  - ANGER IS CONTAINED SUBSTANCE
  - ANGER IS A PRESSURISED SUBSTANCE IN A CONTAINER
  - ANGER IS HEATED FLUID IN A CONTAINER
  - ANGER IS HEAT

Caressing the chest represents a gesture that could be interpreted as an attempt to hold the pressing ANGER inside (hence, an attempt to show patience). The biting/pressing of the lip/teeth could also indicate holding back pressure and pain. Difficulty in breathing could be related to raising internal pressure pushing up the lungs.

- INABILITY TO SEE FOR ANGER motivates the ANGER IS DARKNESS metaphor.

The social-based metonymies represent what Kövecses (2015) suggests as non-embodied contexts and could motivate these metaphors:

- STRONG/AGGRESSIVE VERBAL BEHAVIOUR FOR ANGER and AGGRESSIVE VISUAL BEHAVIOUR FOR ANGER

- ANGER IS A FIERCE, CAPTIVE ANIMAL
- ANGER IS WEAPON
- ANGER IS (UN)VEILED OBJECT
- VIOLENT FRUSTRATED BEHAVIOUR FOR ANGER; CRYING FOR ANGER
  - ANGER IS INSANITY
  - ANGER IS ADVERSARY/OPPONENT
  - ANGER IS SUBJUGATOR

The qualitative analyses above offer some motivation for several of the metaphors in the top 20 tables of the two approaches. These metaphors are based on characteristics that are metonymically associated with ANGER.

## 7. Cultural model of ANGER

The cultural model of ANGER in Indonesian converges with the five-stage prototypical cultural model of ANGER (and emotions in general) in the cognitive linguistic literature (Lakoff and Kövecses 1987: 210–214; Kövecses 2015: 84–85). The aspects highlighted by the metaphorical mappings (Kövecses 2000a: 40–46) in the model correspond to the semantic dimensions of emotion from psychological studies (see Soriano 2013 that discusses [di/con]vergence between metaphorical meaning foci of ANGER and the dimensions of emotions). For instance, the Intensity aspect (Kövecses 2000a: 41) corresponds to the dimension of Arousal (Soriano 2013: 415–416). The Negative/Positive (or [Un]desirability) aspect (Kövecses 2000a: 44) corresponds to the dimension of Valence/Pleasantness (Soriano 2013: 417). The cultural model of ANGER in Indonesian unfolds as follows:

### Stage 1: Cause of anger (offending event)

The Causation aspect is an addition to Kövecses’s (2000a) list of aspects (see Soriano 2013: 416). It provides the reason why ANGER exists. This aspect is predominantly construed as metaphorical events (see the list below, such as igniting a fire, disturbing a dormant animal, pulling the trigger), or a constant state of affairs (e.g., annoyance) (Soriano 2013: 416; see also Heider 1991: 81, finding that the cause of ANGER can be indicated by the “annoyance” cluster that he proposes):

- annoyance
- disturbing/harming dormant animal
- touching/harming a person
- pulling the trigger
- igniting fire
- inviting a person
- seed/source of an organism

### Stage 2: Anger exists

The existential stage of ANGER contains three aspects: Intensity, Evaluation, and Harm. They could be metaphorically captured in two different ways: (i) separately by different mappings from a single metaphor (e.g., the FIERCE, CAPTIVE ANIMAL metaphor can capture the Intensity and Harm

aspects) (Soriano 2013: 415–418); or (ii) exclusively by one metaphor (e.g., the DARKNESS metaphor only captures the negative Evaluation aspect). It is at this stage that ANGER exerts force on the experiencer (i) to become emotional, (ii) to experience the harmful effect of the force and exhibit various physiological responses as shown by the metonymies, and eventually (iii) to attempt a retribution/reaction (Lakoff and Kövecses 1987: 214; Kövecses 2015: 84–85) (see Stage 5 below).

- Aspect: Intensity

The prototypical model of emotion postulates that, at this stage, the intensity tends to escalate and reach the limit the self can control (Kövecses 2015: 85). The following mappings capture the Intensity:

- the fullness of, and increase pressure on, the substance
- high degree of fire, and level of heat in the fluid
- more quantity
- aggressive behaviour and the attack of the animal
- degree of effect of physical harm
- amount of natural force and strength of effect
- (extent of the) insane behaviour

- Aspect: Evaluation

The Evaluative aspect of ANGER is prototypically negative (Soriano 2013: 416). This includes the danger and unacceptability of the angry reaction to others and the self. They are metaphorically construed as:

- bitter taste
- being in the dark
- an intrinsic negative effect of the disease
- strong and destructive natural force as an intrinsically negative force
- affected/impeded motion and being confined

- Aspect: Harm

The Harm aspect relates to the psychological harm to the self and others. It is construed as the effect of physiological harm via the EMOTIONAL HARM IS PHYSICAL DAMAGE metaphor (Kövecses 2000a: 46), which is inherited by the more specific metaphorical mappings as follows:

- the danger of the adversary's attack
- the harmful effect of physical harm, disease, and destructive natural process
- aiming weapons at others
- insane behaviour
- the harm of the attack by the aggressive animal

### Stage 3: Attempt at control

Following the force-dynamic schema of emotion metaphors (Kövecses 2000a: 62–63), the rational self demonstrates a force tendency towards calmness. In doing so, the self will attempt to resist and/or counterforce the emotional forces, including regulating the felt intensity and/or the expression (losing control of) emotion (Soriano 2013: 417). This stage is captured by these mappings:

- restraining captive animal
- suppressing/impeding substance or fluid from going out
- hiding the object
- combating the opponent
- avoiding confinement/impediment
- maintaining sane/calm behaviour

If all the above attempts were successful and ANGER ceased before the self becomes lost control, it would represent the non-prototypical model of ANGER scenarios: “Successful suppression”, “Spontaneous cessation”, and “Terminating event” (Lakoff and Kövecses 1987: 215).

#### Stage 4: Lacking and losing control

When the force of ANGER is too strong to control, the experiencer eventually loses control. That stage is captured by the following metaphorical mappings:

- insane behaviour
- reduced dimension of an object (shortage of emotional control/patience/calm)
- being subjugated as an inferior object
- losing/giving in to the adversary
- unleashing the fierce, captive animal
- unveiling the hidden object
- an explosion of the pressurised container
- boiling over the heated fluid to overflow
- being ravaged by the destructive natural force

The aspects of Difficulty to cope and Passivity are also represented in this stage since the loss of control over forces implies difficulty in counter-forcing them. That difficulty results in the passivity of the self under the strong force (e.g., being subjugated, losing, being ravaged).

#### Stage 5: Act of retribution

This stage represents the Desire to act (to others) aspect: a reaction as “a result of the emotion itself” (Kövecses 2000a: 45; Soriano 2013: 417), rather than the desire to possess ANGER. Metaphorical expressions from the following mappings differently capture the construal of expressing and directing the ANGER towards the wrongdoer (retribution) or other parties.

- releasing/channelling out the fluid at others
- aiming the weapon at others as targets, and punishing others with the weapon

Lakoff and Kövecses (1987: 214) propose that “redirected anger” (i.e., non-retributive to the wrongdoer) is a non-prototypical extension. Examples (5) and (6) below are linguistic examples of the redirected ANGER from the above mappings:

(5)	<i>Mereka</i>	<b><i>me-lampias-kan</i></b>	<i>amarah</i>	<b><i>ke</i></b>	<b><i>arah</i></b>	<i>musala,</i>
	3PL	AV-gush.out-CAUS	anger	to	direction	prayer.house
	<i>padahal</i>	<i>mereka</i>	<i>marah</i>	<i>kepada</i>	<i>polisi</i>	
	even.though	3PL	angry	towards	police	

*karena*            *warga-nya*            *di-tembak (...)*  
 because            resident-3PL.POSS    PASS-shoot  
 ‘They *gushed out* (their) anger *towards* the prayer house, even though they are angry at the police because their residents were shot (...)’(ind-id\_web\_2015\_3M: 1655660)

- (6) *Saya tidak ingin lagi menjadi sasaran amarah publik*  
 1SG    NEG    want    again    become    target    anger    public  
*atas kegagalan Persija musim lalu (...)*  
 on    failure            NAME    season    past  
 ‘I do not want again to become the *target* of the public’s anger over the failure of Persija last season (...)’ (ind\_newscrawl\_2011\_1M: 870086)

The connection between the metaphor and the stage of the model tends to be one-to-many, as demonstrated by Soriano (2013) and earlier by Lakoff and Kövecses (1987). A metaphor does not exclusively contribute to one stage, but plausibly to different stages of the model. This is because the metaphorical mappings for a given metaphor refer to different aspects corresponding to certain stages in the model. For instance, the FIRE metaphor has the mapping for the cause of ANGER (igniting the fire) (stage 1), the intensity of ANGER (high degree of heat) (stage 2), and intrinsically the danger of high extent of fire to the self and others (enacted at stage 5). Similarly, metaphorical mappings within the FIERCE, CAPTIVE ANIMAL metaphor consist of, among others, restraining the animal captive (an attempt at control; stage 3), unleashing the captive animal (loss of control; stage 4), which can manifest in different reaction to the self or others (stage 5), and the attack of the animal to the victim that has implication to the harm aspect of ANGER (see also Lakoff and Kövecses 1987, for the contribution of the HEATED FLUID metaphor to the different stages of the model).

## 8. The role of context

### 8.1. Situational context

Kövecses (2019: 217–218; 2019) proposes three sub-types of the situational context: the physical environment, the social situation, and the cultural context.

Geographically, Indonesia is the largest archipelago in the world, lying across the Equator and between the Indian and Pacific oceans. It has a relatively even tropical climate year-round with two seasons, dry and wet. Geologically, Indonesia is located at the “Pacific Ring of Fire” (PRoF) (Britannica 2020; Masum and Ali Akbar 2019). The PRoF refers to a geographical area with “high volcanic and seismic activities within the edges of the Pacific Ocean” (Masum and Ali Akbar 2019: 1), meaning that it is “a site for frequent earthquakes and powerful volcanic eruptions” (Masum and Ali Akbar 2019: 1). These two natural forces could be accompanied with the tsunami (warning) (Reid 2015). There are more than 100 active volcanoes from the west to the eastern parts of Indonesia (Masum and Ali Akbar 2019: 3; Siebert, Simkin and Kimberly 2011).

Such salient geographical and geological landscapes of Indonesia could motivate the use and comprehension of these metaphors: NATURAL FORCE, FIRE, HEATED FLUID, and TEMPERATURE/HOT-COLD (e.g., *kemarahan berubah dingin* ‘anger becomes cold’, *aku kepanasan amarah* ‘I suffer the heat of anger’; see also in §3.1.16). This study and Rajeg (2013: 110–111) found singletons of expressions specifying ANGER as (lava in a) volcano, a sub-case of HEATED FLUID metaphor: *gunung api kemarahan* ‘volcano of anger’ (§4.1.11), *kemarahan seperti lahar* ‘anger be like lava’,

*memuntahkan lahar amarah* ‘puking the lava of anger’, and *amarah bagai kepundan gunung* ‘anger be like the (lava) crater of mountain’ (Rajeg 2013: 110–111). Moreover, the P<sub>RoF</sub> environment could motivate the NATURAL FORCE metaphor, evoked predominantly by expressions from the NATURAL DISASTER and DESTRUCTIVE NATURAL PROCESS frames (§4.1.14) (see also Fox 2018b: 137, who found the construal of ANGER as a storm arising in the person in Rotenese of Eastern Indonesia; and Rajeg 2013, who found a statistical association between NATURAL FORCE metaphor and ANGER). Another piece of evidence to link ANGER (and its negativity) to the destructive natural force comes from Reid’s (2015) historical study, which identified several uses of the phrase *gempa bumi* ‘earthquakes lit. quake earth’ and related expressions from the Malay Bible in the *Malay Concordance Project* (Reid 2015: 66). These expressions are used to represent earthquakes as manifestations of the wrath of God, and omens (following venerable Islamic and pre-Islamic local beliefs). Reid (2015: 66) further notes that the description of earthquakes appears prominently in the chronicles of Java and Bali, suggesting the long-standing awareness of such context of Indonesia’s physical environment.

From the socio-cultural aspect, Indonesian tends to emphasise non-individualistic/group affiliation and social solidarity. This reflects Indonesia’s deeply rooted socio-cultural legacy called *gotong royong* ‘lit. work together’ (Simarmata et al. 2020). Such social-cultural consideration gives rise to the importance of empathy and the concealment of emotion in the social context (Heider 2011: 10–11; Fox 2018b: 137). To maintain social harmony, concealment of emotion and reconciliation should be the primary goal, rather than hostile confrontation and aggressive expression. Such regulation of emotion is also related to politeness that can benefit social interaction (Prastuti, Tairas and Hartini 2020). This is consistent with Heider’s study on Minangkabau and Javanese Indonesian speakers who “mask most anger, and the open expression of ANGER is strongly disapproved of and negatively sanctioned” (Heider 1991: 80). This context motivates the use of metaphors highlighting the attempt at emotional control and expression, such as the (UN)VEILED OBJECT metaphor (see also Matsuki 1995: 149, for similar socio-cultural context in Japanese to suppress their ANGER). In Rotenese of Eastern Indonesia, the (UN)VEILED OBJECT metaphor is part of “ritual admonitions” offering counsel on ANGER (and other emotions such as fear, shame, and doubt), where the addressee is told not to reveal ANGER in the neck (Fox 2018b: 136). In addition to the metaphor, social-communicative behaviour metonymies, especially those denoting the expressive behaviours of ANGER, could also be motivated by the socio-cultural aspect.

## 8.2. Discourse context

One aspect of the discourse context is the “surrounding discourse”, that is, how the cotext/linguistic context of the previous discourse influence, or is related to, the production of metaphor in the following discourse (Kövecses 2019: 218–219). One example is the use of similar conceptual metaphors in multiple constructions (e.g., noun phrases and argument-structure constructions) that are combined into a single utterance (typically at the sentence level) (see Sullivan 2013 for the interplay between grammatical constructions and metaphor).

- (7) *Wajah-nya yang riang menjadi ke-merah-merah-an karena*  
 face-3SG.POSS REL cheerful become KE-red~REDL-AN because  
*nyala api kemarahan yang mem-bakar dada-nya.*  
 flame fire anger REL AV-burn chest-3SG.POSS  
 ‘H(is/er) once cheerful face became reddish because of the flame of the fire of anger that burned h(is/er) chest.’ (ind\_mixed\_2012\_1M: 376378).

Example (7) illustrates the combination of a metonymic pattern (in the main clause) and two metaphorical expressions for ANGER IS FIRE (within the subordinate clause marked with *karena* ‘because’). The use of FIRE metaphor in the noun phrase *nyala api kemarahan* ‘flame of the fire of anger’ could influence the forgoing discourse in the relative clause construction *kemarahan yang membakar dadanya* ‘anger that burns the chest’. In the context of the sentence, the two metaphorical expressions emphasise the specific reason for the metonymy REDNESS IN THE FACIAL AREA FOR ANGER used in the preceding, main clause. Let us see another example of ANGER IS A SUBSTANCE IN A CONTAINER in (8) (§4.1.1 and §3.1.11).

- (8) *Jika amarah tersebut tak ter-salur-kan atau ter-netralisasi*  
 if anger DEM NEG PASS-channel-CAUS or PASS-neutralise  
*dengan permintaan maaf atau jiwa besar meng-ikhlas-kan,*  
 with request apology or soul big AV-accept-CAUS  
*yang akan terjadi selanjutnya adalah amarah itu*  
 REL FUT happen next COPULA anger DEM  
*meng-endap dan semakin meng-(k)eras dalam batin-nya.*  
 AV-solidify and more AV-hard inside inner.self-3SG.POSS  
 ‘If that anger is not *channelled out* or *neutralised* with an apology and wholeheartedly accepting, what will happen next is that anger *solidifies* and increasingly *hardens* inside h(is/er) inner-self. (ind\_newscrawl\_2016\_1M: 343033)

Sentence (8) contains more than one metaphorical expression that indicates a sequential, cause-and-effect scenario all within the same metaphorical frame, namely the CONTAINED SUBSTANCE. The sentence talks about the conserving effects of ANGER-substance if not being channelled out in the form of apology and big-heartedness. This example shows how the use of a given metaphor in the preceding discourse indicating an inability to channel out and neutralise ANGER, which is the cause, could influence the reasoning for the ensuing discourse indicating the effects of such cause using the same metaphor (i.e., becoming solidified and hardened inside).

### 8.3. Conceptual-cognitive context

One aspect of the conceptual-cognitive context hinted at by Kövecses (2019: 219–220; 2019) is the conventionality of a given metaphor:

- i. the conventional association between a given source and target domains in the metaphorical conceptual system, and
- ii. the conventionalised source-domain expression used to talk about certain aspects of the target domain.

For the first point, Kövecses mentions that LIFE IS A JOURNEY and ARGUMENT IS WAR metaphors exhibit a conventional relationship between their source and target domains in the long-term memory of the speakers. In the case of ANGER in Indonesian, Rajeg (2013) has identified source domains that are statistically associated with ANGER (compared to the other emotions) (§0). This statistical association between the two domains could be assumed to reflect their conventional association, which needs further experimental verification. In addition to using statistical association to assess a metaphor’s conventionality, Lakoff and Turner (1989: 55) propose that a conceptual metaphor is considered conventionalised in language when the metaphor “underlies a

range of everyday linguistic expressions”. This proposal suggests the role of type frequency (i.e., the number of linguistic types manifesting a metaphor) in measuring conventionality.

For the second point, Kövecses argues that the verb *defend* from the WAR domain is a conventionalised expression to express the meaning ‘supporting an argument’ (as in “*defending* an argument”) in the target domain of ARGUMENT. From the corpus-based perspective, the conventionalised linguistic expressions for a given aspect of, or meaning in, the target domain could be identified from the expression’s frequency of occurrences in the corpus (e.g., how many times does a given source-domain LU, compared to the other, is used for a given aspect or meaning of the target) (see Stefanowitsch 2006a: 68). As an illustration, the most frequent (and potentially the default choice of) LU to express the causation aspect of ANGER via the FIRE frame (§4.1.3) is based on the verb root *sulut* ‘kindle/ignite’, as in *menyulutkan* MARAH ‘kindle/ignite anger’ (45 tokens), rather than *memantik* MARAH ‘light up anger’ (3 tokens) or *mencetuskan* MARAH ‘ignite/light up anger’ (2 tokens).

Another type of conceptual-cognitive context is ideology, particularly religious ideology. Religious ideology and belief in Indonesia are very strong. They have long been an integral part of Indonesian daily, socio-cultural life since they are inherent in the first principle of the nation’s ideology *Pancasila* (‘The Five Principles’), namely belief in the Supreme God. From the religious and spiritual perspective, ANGER is dangerous and generally viewed negatively (Bhide 2007; Faizah, Lutfi and Haris 2021; Minhas, Akhmad and Afzal 2017); this view provides a plausible grounding for metaphors focusing on the negative valence and danger, namely ADVERSARY, FIERCE, CAPTIVE ANIMAL, SUBJUGATOR, DISEASE, DARKNESS, INSANITY, EVIL CREATURE (e.g., *massa sudah dirasuki amarah* ‘the masses has been possessed by anger’), and DECEIVER (e.g., *tipuan/godaan amarah* ‘trickery/enticement of anger’) (Soriano 2003: 118 also argues for the religious-cultural influence of Christianity on construing ANGER as DEVIL in Spanish). For instance, as a Balinese Hindu, in my elementary-school religion subject, I was taught that ANGER is one of the six enemies, the so-called *Sad Ripu* (‘Six Enemies’), that humans need to manage or even defeat. This is a religious basis for the use of ADVERSARY and SUBJUGATOR metaphors in construing ANGER (see also Faizah, Lutfi and Haris 2021 for the view from Islam; and Minhas, Akhmad and Afzal 2017, from the multi-religion perspective). Moreover, the devastating effects of ANGER have been illustrated in various parts of the famous Hindu epic, the *Mahābhārata* (Bhide 2007). Another example is the religious-ideological view of ANGER as a disease, which is reflected in the notion of “Spiritual healing or medicine” (Minhas, Akhmad and Afzal 2017). Such healing can also be used, among others, for “anger management” and (literally) can “prevent the impact of disease by reducing bad feeling or anger” (Minhas, Akhmad and Afzal 2017: 168).

#### 8.4. Bodily context

The bodily context is related to the locus of emotion, which is in turn rooted in the cultural situation and pre-modern religious practices in Indonesia. This study found that *hati* ‘liver’ is the predominant body-part term (21 tokens) used as a locus of emotion in a variety of metaphors ( $X^2=71.39$ ,  $df=11$ ,  $p_{\text{goodness-of-fit}} < 0.001$ )<sup>11</sup>. Siahaan (2008) proposes that the liver divination ritual and the ethno-religious belief of *hati* ‘liver’ as the locus for the living soul could be the underlying

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<sup>11</sup> The other body-part terms used in the metaphorical expressions are as follows (together with their token frequencies): *mata* ‘eyes’ [9], *dada* ‘chest’ [8], *jantung* ‘heart’ [5], *ubun-ubun* ‘crown of the head’ [5], *wajah* ‘face’ [5], *kepala* ‘head’ [2], *otak* ‘brain’ [2], *badan* ‘body’ [1], *mulut* ‘mouth’ [1], *tangan* ‘hand(s)’ [1], *tubuh* ‘body’ [1].

cultural motivations for the importance of *hati* in the conceptualisation of emotion and cognition in Indonesian. This shows the sociocultural situatedness of embodiment in metaphorical conceptualisations of ANGER.

## 9. Conclusions

By combining the lexical (type-based) and corpus linguistic (token-based) approaches, this study reveals the dynamics (i.e., convergence and divergence) in the metaphors and metonymies of ANGER and their degree of salience. Metaphors attested in the lexical and corpus-based approaches may differ in several respects (§5). One example is in the different main meaning focus of the same metaphor in the two approaches (§5.3), due to different productivity and presence of a given metaphorical mapping (e.g., the PRESSURISED SUBSTANCE IN A CONTAINER and FIERCE, CAPTIVE ANIMAL metaphors). Another example is the attestation of metaphors only in either approach (§5.2). Such differences would also result in different degrees of salience and ranking of the same metaphors.

This study also found that the metaphors strongly associated with ANGER in Rajeg's (2013) corpus-based study (§0) also make into the top-20 salience tables (i.e., the family of the PRESSURISED AND HEATED SUBSTANCE, the HEAT/FIRE, and the NATURAL FORCE metaphors), even though the relative salience of the metaphors in this study is contrasted for their occurrences with ANGER only (rather than with other emotions as in Rajeg (2013) and Stefanowitsch (2006a)). This study also offers new insights regarding the salient metonymies for ANGER in Indonesian that are not discussed in previous studies (§0). Overall, the salience-based analyses offer a different perspective in capturing the prominence of metaphors and metonymies for ANGER by considering the central components of metaphor and metonymy in CMT, namely the extent of mappings and the linguistic expressions.

Furthermore, the Indonesian prototypical cultural model of ANGER (§7) largely corresponds to the five-stage model proposed in the previous work on ANGER in American English (Lakoff and Kövecses 1987). The cultural model also captures relevant semantic dimensions of emotions proposed in the psychological literature (Soriano 2013). This study also identified examples of a non-prototypical model of ANGER, such as redirected anger and the metaphor suggesting concealment.

Finally, this study argues for the different contexts as the motivating factors in the use of several metaphors. These contexts include the geographical and geological landscapes of Indonesia, the deeply rooted socio-cultural and religious beliefs of Indonesian, the conventional metaphors in the memory, and the socio-cultural situatedness of embodiment for the bodily locus of ANGER. The contextual dimension of metaphor usage is the missing aspect of previous works on ANGER metaphors in Indonesian.

## Abbreviations

AGT	agent
AV	actor/active voice
BRP	body-related parts
CFA	configural frequency analysis
CMT	conceptual metaphor theory
DEM	demonstrative
EMO	emotions
EXP	experiencer
ILC	Indonesian Leipzig Corpora
KBBI	Kamus Besar Bahasa Indonesia

KBI	Kamus Bahasa Indonesia
lit.	literal sense
LOC	location/locative
MDCA	multiple distinctive collexeme analysis
MIP	metaphor identification procedure
MN	MetaNet
MPA	metaphorical pattern analysis
PAT	patient
s.o.	someone
UTTR	utterance

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