Overview

This project is about understanding the moral aspect of events in political news. Authors express their opinion or political stance through *moral judgment* towards events, specifically *whether the event is right or wrong* according to social moral rules. Moral foundation theory created by the social scientist groups the social moral rule into five dimensions, with one positive moral sentiment and one negative for each dimension.

non-moral	moral									
	Dim 1		Dim 2		Dim 3		Dim 4		Dim 5	
	care	harm	fairness	cheating	loyalty	betrayal	authority	subversion	purity	degradation

Note: 5 * 2 + 1 = 11 classes in total, Blue: positive moral sentiment, Red: negative moral sentiment

Annotation Steps

1. read the entire article, understand the author's overall judgement, stance, opinion

2. read the article again, extract all the event mentions, keep the default label as non-moral

3. go over the article and extracted events again, change the initial label into moral value label, think in the following order:

(1) moral identification: the author's moral sentiment towards the event is **neutral** reporting, **positive** praising, or **negative** criticizing?

- Sentential local context matters more than article-level global context in moral identification. Each sentence has different discourse role in telling a news story: main event reporting, context informing, or author's evaluation. So, paying attention to the discourse role of each sentence in the article can help you identify neutral reporting versus positive/negative judgement.

- The author's moral judgement can be implicit, but the author chooses each word or includes any information for a reason. So, paying attention to the author's word choice (lexical bias) and the information included (informational bias) can help you identify implicit judgement.

(2) moral classification: if moral sentiment is positive or negative, which one of the five moral dimensions does this event belong to? If multiple dimensions are related, choose the primary.

- Thinking about the intention of the agent obeys (positive) or violates (negative) which one of the five moral rules: feeling of other's pain (care/harm), equality & justice & honesty (fairness/cheating), loyalty to the affiliated group (loyalty/betrayal), maintaining social order (authority/subversion), or spiritual belief (purity/degradation)?

- Think about the effect on the patient – Imagine we are in the same position of the patient, what is our primary feeling, being harmed, cheated, betrayed, misruled, or degraded?

Note: Do not extract the events and assign moral label at the same time. We still need two-path annotation schema: extract event mentions and assign moral label at separate paths. Otherwise, the two tasks can disturb each other.

Annotation Component 1 – Event Extraction

Given a news document, the first annotation component is event extraction:

(1) deciding which span of text is event: event is defined as any occurrence, action, process, or event state which deserves a place upon a timeline, and could be realized by verb, noun, or adjectives.

(2) choosing one single word to represent the event: you might have found a long phrase which designates the event, here we followed the minimum span rule in RED guideline to select one single word which will represent the whole idea

https://github.com/timjogorman/RicherEventDescription/blob/master/guidelines.md

1. make the event / non-event determination independently of syntax: should focus on the semantic questions of what is actually happening, asking whether the words you are considering constitute a sequence of changes, transitions, or states occurring in the world. events can also exist in non-syntax head

*E.g.: ZANU-PF election officials also plan to use civil service employees to **monitor** the vote-counting and **bar** independent monitors from nonprofit organizations from **assisting** in such routine tasks as **transporting** ballot boxes to counting stations.*

(If consider syntax, "plan" is the root of syntax tree for this sentence, but "plan" is not an event in this sentence, we should consider the semantic meaning what event is actually happening.)

*E.g.: This phenomenon is likely just an **aggravating** factor in the **crisis**.*

('aggravating' is an attribute of 'factor', but we can see something is happening from semantics, this phenomenon become aggravating, and the word 'aggravating' can represent this occurrence)

If the syntax head is an event, the modifier of this syntax head can contain events as long as an occurrence is implied, or an action is evoked

*E.g.: **Drunken-driving arrest** turns up **fugitive** in $100 million **fraud** case. (Although 'Drunken-driving' is a modifier and not the syntax head, however, 'Drunken-driving' can tell us something happened and its syntax head 'arrest' is an event. The modifier of an event syntax head can contain events as long as an occurrence is implied, thus 'Drunken-driving' is an event)*

*E.g.: **police-involved shooting** ('police-involved' implies an occurrence and its syntax head 'shooting' is an event, thus 'police-involved' is also annotated as event, we can something happened from 'police-involved')*

*E.g.: Politicians want to **provide paid** parental **leave**. ('paid' evokes an action and its syntax head 'leave' is an event, thus 'paid' is also annotated as event)*

If the syntax head is a non-event such as a noun, the modifier of this syntax head can contain event only if the syntax head is the subject or object of this event
*E.g.: **Retired** cabinet maker Ron Smith was one of the supporters. (in the phrase 'retired cabinet maker Ron Smith', the syntax head 'Ron Smith' is a non-event noun, the modifier 'retired' is an event and the syntax head 'Ron Smith' is the subject participating in this event)*
*E.g.: The **leaked** documents **kickstarted** a media frenzy on Russia-Trump **collusion**. (in the phrase 'leaked documents', the syntax head 'documents' is a non-event noun, the modifier 'leaked' is an event and the syntax head 'documents' is the object of this event: 'documents were leaked')*
*E.g.: Trump **told roaring** attendees. (in the phrase 'roaring attendees', the syntax head 'attendees' is a non-event noun, the modifier 'roaring' is an event and the syntax head 'attendees' is the subject of this event)*

If the syntax head is a non-event such as a noun, and is not the subject or object participating in the events in the modifier, then ignore such events in the modifier
*E.g.: **sent** <u>manufacturing</u> jobs to Mexico and other countries (although 'manufacturing' can be event in other cases, but here its syntax head 'jobs' is a non-event noun and not the subject or object participating in the 'manufacturing' events, thus 'manufacturing' in this case is just a modifier of the noun 'jobs' and does not imply any occurrence)*
*E.g.: The Republican presidential nominee's **speech** comes after a bruising week that saw a major **shake-up** of his <u>campaign</u> staff. (although 'campaign' can be an event in other cases, but here it is just a modifier of the noun 'staff, its syntax head 'staff' is a non-event noun and not the subject or object of the 'campaign' event, thus 'campaign' is not an occurrence expressed in this sentence)*
*E.g.: Women **voting** in their self-interest will **preserve** <u>abortion</u> rights. ('abortion' can be event in other cases, but here it is just a modifier of the noun 'rights', the syntax head 'rights' is a non-event noun and not the subject or object of the event 'abortion', thus 'abortion' event is not an actual occurrence this sentence want to express)*

2. state/attribute/properties is an event only when its use evokes an action of someone did something, or implies actual occurrence which has starts and ends in the timeline

*E.g.: The walls **yellowed** during the fire. (most eventive)*
    *We came home to find the door **opened**.*
    We came home to find the door <u>open</u>.
    I own a <u>yellow</u> canary. (very non-eventive)
(The above four sentences range from very eventive to non eventive. All states exist on a timeline, but merely existence on a timeline is not sufficient in determining an event. The first two examples do more than potentially have starts and ends in the timeline, thus considered as event.)
*E.g.: I came home and saw the door was **open**.*
    He walked through the open door.

(Adjectives used as mere specifiers or descriptions are not event. "open" is the first sentence evokes an action of someone opening it, while "open" in the second sentence is merely specifier. Attributes or properties is an event when its use implies actual occurrences.)

*E.g.: President Fernando Henrique Cardoso <u>was in Argentina</u> before **traveling** to Europe.*
('was in Argentina' is not event, just describing a state, not implies actual occurrence or evokes an action of someone did something, the event 'traveling' changed that state)
E.g.: the politicians <u>are almost from</u> the province of Buenos Aires. ('are from xx provinces' is not event, just objective description)
*E.g.: Fifty-eight percent of your youth is **unemployed.** ('unemployed' is an occurrence which has starts and ends time span in the timeline)*
*E.g.: We **live** in a country founded on the principle that I <u>am free</u> to **live** by my faith. ('live in a country' is not just a state, but also evokes an action or implies an occurrence, thus an event. 'are free to' is a state or objective description without implying any occurrence)*

3. when an event is a verb phrase containing light-verb, do not choose the grammarly-served light-verb such as go, seem, have etc., the light-verb does not have real meaning, the word other than the light-verb carries more meaning

*E.g.: Your dog <u>seems</u> to have **eaten** the cupcakes.*
("seem" is a grammaticalized verb and not eventive, "eaten" is the event actually happening.)
*E.g.: John <u>took</u> a **bath.** ("took" is not an event, "bath" is the event happened here.)*
*E.g.: The patient <u>underwent</u> **surgery**.*
*E.g.: The burglar <u>committed</u> a heinous **crime.***
*E.g.: Trump <u>appeared</u> to **justify** the **strategy** in a series of **tweets**. (For the event 'appear to justify', 'appear' is a light-verb without real meaning, 'justify' carries the core meaning)*
*E.g.: a bill that <u>made</u> it **legal** for California public employees to **become** members of the Communist Party (for the event 'made it legal', not choose the light-verb 'made', but 'legal' which carries more meaning)*
*E.g.: try to **run**; deliver a **speech**; lead someone to **do** something; run a **race***
*E.g.: It's what men have been doing for years, which is why the world looks so much **like** them. Let's **make** it look more **like** us. (for the event 'look like them' and 'look like us', 'look' is similar to 'seem', is just a light-verb for rhetorical using, 'like' is the core meaning of the event)*

4. when an event is a phrase containing modifier or description, choose the syntax head of this phrase. Syntax is considered when you have decided a phrase is event and need to choose one representative word, which is not conflicted with rule 1 that you should not consider syntax when you need to decide whether the word/phrase is event or not.

*E.g.: offensive **speech** ('offensive' is an adjective describing the 'speech', is a modifier of 'speech', 'speech' is the syntax head of this phrase)*
*E.g.: a long **race** ('long' is a modifier of 'race', 'race' is the syntax head)*
*E.g.: The U.S. President **maintained** his **stance** on the civil **war**.*

('stance on the civil war' is an event, 'stance' is the syntax head of this phrase)
*E.g.: negligent **approach**, devastating **leadership** (choose the syntax head)*
*E.g.: Michele did **something** pretty courageous. ('courageous' is the modifier of 'something')*

5. when an event is a verb phrase, without light-verb (rule 3 not applicable), without modifier or description (rule 4 not applicable), choose the verb word
*E.g.: **wind** down, **lift** up, **go** out, **move** beyond, **rule** out the risk, **double** down*

6. when an event is an idiom, choose the head verb in the idiom
*E.g.: The chickens have **come** home to roost for Bush. (Simply select the head verb 'come' in the idiom, which stands for your interpretation of the coming-home-to-roost event)*

7. When there exist event arguments, do not choose the argument but choose the event trigger word.

*E.g.: She **explained** how having an **abortion helped** her **decide** when to **have** children.*
(For the event 'have children', 'have' is the action and is the event trigger word, 'children' is an argument of the event. For the event 'having an abortion', 'have' and 'abortion' are both event words, but 'abortion' is more representative, 'have' is more like a supportive verb.
When there exists event argument, do not choose the argument but choose the event trigger word. When there exists two event words, choose the most meaningful one.)
*E.g.: He has a necessary quality for **exercising** his office in the **crisis**.*
(For the event of 'exercising his office', 'exercising' is not a supportive verb, it has the real meaning and evokes an action, thus is the event trigger word, 'office' is the argument of this event)
*E.g.: **ruling** the office (the core meaning is on the action of 'ruling', 'office' is the argument)*
*E.g.: **push** a bill, **pass** a law ('push' and 'pass' are not supportive verb, they have the real meaning and evoke actions of pushing, passing, the bill and law are the arguments of the events)*

8. when there is no light-verb (rule 3 not applicable), no phrase with modifier (rule 4 not applicable), no verb phrase (rule 5 6 not applicable), and no event arguments (rule 7 not applicable), if more than one words designate the same event, which means more than one words are event trigger words, choose the most meaningful one word that can recover the core idea of the event

*E.g.: **fraud** case, Internet **pyramid** scheme*
*E.g.: **cure** would arrive ('arrive' means will happen, more like a supportive word, 'cure' is the word recovering the whole idea of the event)*
*E.g.: **need** a colossal **effort** ('need' and 'effort' are both events, 'need' here is not just a grammar served verb, but has the real meaning, identifying the needs, 'efforts' is another event happening in the future)*

*E.g.: **pain** in **illness** and **death** ('pain' here has the real meaning and represent the event of people suffering the pain, 'illness' 'death' are the event of being ill/dead)*

*E.g.: You are <u>living</u> in **poverty**. ('poverty' can recover more meaning of the event 'living in poverty')*

*E.g.: Trump **said** he will **get** over 95% of African-American **vote**. (Trump 'get the vote' and African-American 'vote' are two separate events, 'get' has the real meaning and is not a supportive verb)*

*E.g.: You will keep <u>getting</u> the same **results**. ('getting' is a supportive verb in this case, 'results' can recover more meaning of the event 'getting the same results')*

*E.g.: The Republican presidential nominee's **speech** comes after a bruising week that <u>saw</u> a major **shake-up** of his campaign staff. ('saw a major shake-up' is one event, choose 'shake-up')*

*E.g.: We can <u>do</u> **better** as a country. ('do' is a supportive verb, 'better' is the core meaning)*

*E.g.: the politicians who are <u>running</u> the Argentine **process** (for the event of 'running the Argentine process', 'run' is more like a Grammarly-served verb, 'process' can recover the core meaning)*

*E.g.: The people are <u>experiencing</u> the **outbreaks** (experiencing' here is a support word to connect the subject with the event, the event is what is being experienced)*

*E.g.: Trump <u>faced</u> the **threats** of **lawsuits** from Texas and other states ('face the threat' is an event, 'threat' carries the core meaning, the threatened content is another event)*

*E.g.: Aden <u>suffered</u> from **injuries** to his hand and ribs after being hit. ('suffered' and 'injuries' trigger the same event, they are both trigger word, choose the most meaningful word 'injuries')*

*E.g.: The family <u>endured</u> several **attacks** since they became Christians. ('endured' and 'attacks' designate the same event, they are both trigger word, choose the most meaningful word 'attacks')*

*E.g.: <u>making</u> Judge Titu's **ruling** nearly **irrelevant** in effect ('make something irrelevant in effect' is an event, choose 'irrelevant' which represents the core meaning)*

*E.g.: Democrats <u>introduced</u> meaningless **legislation designed** to **burnish** their progressive credentials ('introduce meaningless legislation' is an event, choose 'legislation'; 'designed' is an event, which evokes an action and occurrence; 'burnish their progressive credentials' is also an event, choose 'burnish')*

*E.g.: She <u>used</u> her **speech** to **explain** xxx. ('use xxx to explain' is one event)*

*E.g.: She **urged** women to <u>use</u> their **voting** power. ('use their voting power' is one event, 'voting' is the happening event and is more representative, 'use' is more like a supportive verb)*

*E.g.: **decide** to **lie**. (both 'decide' and 'lie' are events)*

*E.g.: **prevent** ISIS from **attacking** ('prevent' and 'attacking' are two events with different agents)*

9. when the extracted event word is a pro-noun, then ignore this event

*E.g.: <u>Doing so</u> will **obstruct** the federation's **plans**. (for the event of 'doing so', 'doing' and 'so' are both event words, 'so' represents more meaning than 'doing, so we should choose 'so', but 'so' is a pro-noun and doesn't carry specific meaning, thus we just ignore this event)*

*E.g.: I wouldn't have been able to <u>do this</u> without **employing** a woman's right to **choose**. (for the event of 'do this', 'do' and 'this' are both event words, 'this' represents more meaning than 'do', so we should choose 'this', but 'this' is a pro-noun without specific meaning, thus ignore this event)*

*E.g.: So women, when it is time to **vote**, please <u>do so</u> in your own self-interest. (ignore 'do so' event because the extracted event word 'so' is just a pro-noun)*

E.g.: It's <u>what men have been doing</u> for years. (ignore the event 'what men have been doing', because the extracted event word 'what' is a pro-noun)
E.g.: <u>This is still happening</u> post-2016. (for the event 'this is happening', 'this' and 'happening' are both event words, 'this' represents more meaning, so we should choose 'this', but 'this' is a pro-noun, thus we ignore this event)

10. extract events including the event indicating the event relation, such as cause, enable, help, make, allow

*E.g.: I **suppose**, me, would **talk** about it, since doing so will **obstruct** the federation's **plans, cause** us to **pay** legal expenses, **run** the **risk** of our being **stuck** without any office space at all, **cause** people not to **loan** us money, and so forth. ('cause' connects two events and functions as an indicator of causal event relations, also evokes an action, thus an event)*
*E.g.: She **explained** how having an **abortion helped** her **decide** when to **have** children. ('helped' in this case connects two events and functions as an indicator of pre-condition event relations)*
*E.g.: She **urged** women to use their **voting** power to **help reshape** the government. ('help' in this case connects two events and functions as an indicator of event relations, also evokes an action, thus an event, 'reshape' is another event of separate semantic meaning)*
*E.g.: Williams delivered a **speech** on how **abortion helped shape** women's economic **futures**. ('helped' is an event indicating the pre-condition event relation, 'shape' is another event)*
*E.g.: The traffic **made** us **late**. ('make' is an event indicating the pre-condition event relation)*
*E.g.: **allow** someone to **do** ('allow' like 'enable', is an event indicating the pre-condition event relation)*

11. extract events including evidential event

*E.g.: U.S. marshals recently **learned** that a fingerprint from a 51-year-old man **arrested** in February 2011 **belonged** to Ulrich Felix Anton Engler. ('belonged' is an evidential event)*
*E.g.: **confirmed, showed, revealed, marked, indicated***
*E.g.: Has anyone been **looking** at the **crime** taking place south of the border. ('looking at' is an investigation event)*

12. extract events including reporting event

*E.g.: **said, stated***
*E.g.: **according** to Fernando Henrique, President Eduardo has an insight towards the crisis. ('according' is an indirect reporting event, also called prepositional reporting based on RED guideline, also can be interpreted as an evidential event)*
*E.g.: **know, think, believe***
13. extract events including aspectual event

*E.g.: Engler was being **held** by U.S. Immigration and Customs Enforcement, **pending** his **transfer** to Germany. ('pending' is an aspectual event)*
*E.g.: His jobs plan would **restore manufacturing** to cities like Detroit and other Midwestern states. ('restore' is an aspectual event, 'manufacturing is another event')*
*E.g.: **waiting** for medical **care***
*E.g.: **continued, begin, started, re-started, ended***

14. extract events including implicit events which imply something happened/happening

*E.g.: according to the ICE **statement** ('statement' here is an implicit event, we can tell from this word that something happened, ICE issued a statement)*
*E.g.: face 20 years in **prison***
*E.g.: We **need** a **project** to **fight** the **virus**. ('virus' is an implicit event, implies the occurrence)*
*E.g.: Trump appeared to **justify** the **strategy** by **claiming** criminals are **crossing** the border illegally. ('strategy' is an implicit event)*
*E.g.: The people of Germany are turning **against** their leadership as **migration** is **rocking** the already tenuous Berlin **coalition**. ('coalition' is an implicit event implying an occurrence in the past)*
*E.g.: Trump **told** a **rally** in Dimondale. ('rally' is an implicit event, we can see something happened)*
*E.g.: A new **future requires** brand-new **leadership**. ('future' implies anything can happen in the future, not specific event, but general event, 'leadership' is implicit event in the future)*
*E.g.: Williams delivered a **speech** on how **abortion helped shape** women's economic **futures**. ('abortion' is an implicit event of having an abortion, 'futures' is an implicit event representing the general future events)*
*E.g.: "Hillary Clinton is a throwback to an ugly **past**" Trump **said**. ('an ugly past' is something happened in the past, not specific event, but general event)*
*E.g.: We cannot **fix** our **problems** by **relying** on the same politicians who **created** our **problems** in the first place. ('problems' is something happened)*
*E.g.: A federal judge **ruled** Monday that President Trump's **phaseout** of the Obama-era DACA **program** is legal. ('program' is implicit event, we can see something happened)*

15. extract events including denial events
*E.g.: **denied, disapproved, rejected, disallowed***
*E.g.: They **fail** to **recognize** that these women are **prioritizing** their whiteness. (In the phrase 'fail to recognize', 'fail' and 'recognize' are two separate events)*

16. do not annotate the negation
*E.g.: government **breakdown** does not happen; there is no **protest** (only annotate 'breakdown' and 'protest' and ignore the negation)*

Annotation Component 2 – Moral Value of Event

After extracting the event mentions, the second annotation component is assigning a moral label to the event. 5 * 2 + 1 = 11 classes in total, Blue: positive moral sentiment / positive opinion, Red: negative moral sentiment / negative opinion

Moral dim	Moral value meaning	Entities involved	Seed words
care / harm	Care for others, generosity, compassion, ability to feel pain of others, sensitivity to suffering of others, prohibiting actions that harm others	1. target of care / harm 2. entity causing harm 3. entity providing care	empathy, compassion, benefit, help, love, protect, heal, care, generous, rescue, relieve, safe / hurt, harm, threaten, damage, kill, die, destroy, endanger, injure, pain, attack, harass, murder, abuse
fairness / cheating	Fairness, justice, reciprocity, reciprocal altruism, rights, autonomy, equality, proportionality, prohibiting cheating, crime should get punished by the law	1. target of fairness / cheat 2. entity ensuring fairness 3. entity doing cheating	equal, rights, law, lawful, fair, justice, unbiased, share, trust, honest / racism, bias, unequal, cheat, fraud, lie, false, steal, mislead, dishonest, distrust
loyalty / betrayal	Group affiliation and solidarity, virtues of patriotism, self-sacrifice for the group, prohibiting betrayal of one's group	1. target of loyalty / betrayal 2. entity being loyal 3. entity doing betrayal	loyal, ally, follow, family, unity, sacrifice, belong, community, enlist, grouping / betray, enemy, abandon, desertion, rebel
authority / subversion	Fulfilling social roles, submitting to authority, respect for social hierarchy/traditions, leadership, prohibiting rebellion against authority	1. justified authority 2. justified authority over 3. failing authority 4. failing authority over	authority, govern, dominate, supervise, guidance, hierarchy, police, forbid, permit, obey / rebel, protest, riot, subvert, disrespect, refuse, disorder, unrest
purity / degradation	Associations with sacred and holy, disgust, contamination, religious notions which guide how to live, prohibiting violating the sacred	1. target of purity/degradation 2. entity preserving purity 3. entity causing degradation	sacred, holy, sanctity, god, wholesome, noble, faith, pure, soul, saint, religious / decay, degrade, desecrate, impure, sleazy, gross, disgusting, debase, contaminate

1. moral label is context dependent, and only depends on this article's semantic context, do not think too much about what else meaning this event can carry in other articles context and avoid too much inference, should only based on this article's text semantic itself

2. we should think from the author's perspective and judgment, when the author cites or quotes the third party's statement, we should think from the cited person's perspective and judgment

3. [moral identification] moral related events make you consider whether it is right or wrong to do so according to human moral principles, while non-moral events are not related to right or wrong judgement from moral perspective.
*E.g.: More than 200 people **crowded** an Antioch forum on Friday.*
("crowded" event here is an objective event, and not related to right or wrong judgement.*)*

We need to identify the event carries neutral reporting, positive praising, or negative criticizing.
- Neutral reporting: non-moral label
- Positively praising: five positive moral labels, the author think it is the right thing to do
- Negatively criticizing: five negative moral labels, the author think it is the wrong thing to do

*E.g.: The government will **detain** the family together when they are **apprehended** at the ports of entry. (Although the action of 'detain' and 'apprehended' are from the government authority, but the author's sentiment towards those actions is just neutral reporting instead of positive praising, thus the label should be non-moral without right or wrong moral judgement)*
*E.g.: Flake triggered an FBI **investigation** of Kavanaugh last Friday. (Although the action of 'investigation' is from FBI authority, but the author's sentiment towards this action is just neutral reporting instead of positive praising or negative criticizing, thus the label is non-moral)*

Negative sentiment may not contain negative moral sentiment

*E.g.: At the White House, in recent days, there has been a **growing** sentiment that medical experts were **allowed** to **set** policy that has **hurt** the economy. (the text shows negative sentiment towards the event 'hurt the economy', however, the author didn't give moral judgement towards this event. Negative sentiment is not from the moral perspective. 'economy' is not the social order, hurting the economy is not destroying the social order, thus not subversion label)*

4. [moral identification] The opposite action towards a negative event does **not** have to be positive, the only criteria to put a positive label is the author is positively praising such action.

*E.g.: The administration cited a federal court **ruling [non-moral]** that said it is unconstitutional for the president to make those **payments [cheating]**. ('ruling' is the action towards the negative event 'unconstitutionally make payments.' However, negative judgement contained in 'make payments' event does not make 'ruling' a positive event. The only criteria for 'ruling' to be positive is that the author is positively praising 'ruling' action.)*
*E.g.: The police **arrested [non-moral]** the people who **passed [cheating]** the border illegally. ('arrested' is the action towards the negative event 'passed the border illegally'. However, the negative judgement towards 'passed the border' does not make 'arrested' a positive event. The only criteria for 'arrested' to be positive is that the author is positively praising 'arrested' action.)*

The opposite action towards a positive event does **not** have to be negative, the only criteria to put a negative label is the author is negatively criticizing such action.

5. [moral identification] Sentence-level local context matters more than article-level global context in identifying the event carries neutral reporting, positive praising, or negative criticizing. But it doesn't mean we ignore the article-level global context. We should rely on the content of this sentence (local context) and its role in article story telling (role within global context).

Each sentence has different discourse role in telling a news story: main event reporting, context informing, or author's evaluation. When a journalist writes a news article, he may begin with reporting the main event, and then tell you some context information such as other happening events or past events, and then may include personal evaluation such as opinions or judgments.

So, paying attention to the discourse role of each sentence in the article can help you identify neutral reporting versus positive/negative judgement.

*E.g.: The federal judge **ruled** that Trump's **phaseout** of Obama DAVA program is legal.*
(After reading the whole article, we know the author's article-level moral stance towards 'ruled' event is fairness, however, it doesn't mean every 'ruled' events appearing in the article are judged with fairness. Sentence-level local context matters more than article-level global context. The discourse role of this sentence in the whole news article is just reporting the main event, and 'ruled' event in this sentence is just an objective reporting without moral judgement)
*E.g.: He **survived** a **gunshot [harm]** last summer.*
(although 'gunshot' is not the main event in the whole article, but the author has local moral judgement towards this event based on the event word itself and its local context, thus we should also annotate harm judgement for 'gunshot' event)

It does **not** mean all the first few sentences are neutral reporting, and also does **not** mean the author's judgement only appear in the latter part of the article.
The position of the sentence is **not** related to sentence discourse role, and **not** related to author's judgement. Moral judgement can happen everywhere: former, middle, of latter part of the article.

There can be cases that the author's stance changes from the former part of the article to the latter part of the article, which is a kind of argumentation strategy. For example, the author first talks about something positive towards the entity and then emphasizes more on the negative part of the entity. For such case, we should be guided by the local stance and point out the change of stance, instead of ignoring one of stances and only pointing out the overall article-level stance.

6. [moral identification] moral judgment exists in the following three scenarios:
(1) the author is judging towards the already happened events indicating **the action of the entity**
(2) the hypothetical events indicating **the intended action of the entity**
(3) the **results or hypothetical results** caused by the action of the entity

*E.g.: The **patchwork** Obama **put** together will **fail [subversion]** to **destroy [authority]** ISIS. (the author thought the government should take the responsibility of 'destroy ISIS', 'fail' to do so is the government's failure to fulfill its social role and failure to maintain the social order, the author is judging towards the hypothetical results caused by Obama. Moral judgement can exist in the results or hypothetical results caused by the entity's action)*
*E.g.: He **tweeted**: "We should be in the business of **helping [care]** people." ("We should" indicates the intended action of the entity)*

Suggestions from the third-party person other than the entity engaged in the event (subject or object of the event) are non-moral.

*E.g.: Obama should <u>**organize**</u> U.S. troops and equipment to be **shipped** back to Iraq. (Suggestions from the third-party person such as "You should do something" is different from "We should do*

something". The event "should organize" is a suggestion from the author, and does not contain the judgement towards the action of Obama or intended action of Obama or the results caused by Obama, thus non-moral)

non-existing criminal actions should be non-moral instead of negative moral judgements. When the author thinks the criminal action doesn't even exist, his judgement towards this non-existing / unproven / fake criminal action should be non-moral instead of negative judgement

*E.g.: Robert Muller **cleared** Trump of any __collusion__ with Russia. (From the whole article context, we know the author supports Trump and doesn't believe collusion really happened. We should think from the author's perspective, the author thinks the collusion doesn't exist, thus he didn't have betrayal judgement towards Trump. The author's judgement towards this non-existing / unproven / fake 'collusion' event should be non-moral instead of betrayal.)*

7. [moral identification] avoid overlooking implicit moral judgement

The author's moral judgement can be implicit, but the author chooses each word or includes any information for a reason.

The author can embed two types of media bias into the news article:
(1) lexical bias - when the word itself inherently contains sentiment
(2) information bias - when the author includes selective information to bias the reader

So, paying attention to the author's word choice (lexical bias) and the information included (informational bias) can help you discover implicit judgement and avoid overlooking.

8. [moral classification] clarify the differences among five moral dimensions. The five layers of human needs to live a good life drives the five corresponding moral principles.
The complete event expression is (agent argument, event trigger, patient argument). When choosing one of the five dimensions, we can think the following questions:
(1) what is the intention of the agent?
(2) what is the effect on the patient? – imagine we are in the same position of the patient, what is our primary feeling, being harmed, cheated, betrayed, misruled, or degraded?

care/harm: The human need for being cared and not harmed by others drives the moral principle that we should show compassion for others and be able to feel the pain of others. The affected patient in the event is more at the individual-level (another person)

fairness/cheating: The human need for the relation between each individual within the same mutual society should be equal drives the moral principle that we should equally treat everyone, should pursue law justice and be honest. The patient in the event is more at the individual-level (another person, a subset of the whole society)

loyalty/betrayal: The human need for group affiliation drives the moral principle that we should be loyal to the group we belonged to, such as family, friends, community, or nation. The patient is more at the group-level (not the whole society but the sub-group the agent belonged to)

authority/subversion: The human need for an authority to lead the whole society and living in a society with social order drive the moral principle that we should obey and maintain the social order. The patient is more at the group-level (the whole society, the general public)

purity/degradation: The human need for pursing spiritual belief drives the moral principle that we should maintain the purity of our spiritual belief instead of degrading. Spiritual belief can exist in the form of religious faith or secular commonsense principles.

Note: the concept of individual-level is as opposed to the group-level or the whole society-level, instead of single person as opposed to multiple people. Although care/harm and fairness/cheating emphasize more at individual-level, but can also involve multiple entities.

9. difference between authority/subversion and fairness/cheating:
authority/subversion: enforcement of law, action issued by police, government
fairness/cheating: judgement of law, action issued by court, law, justice

*E.g.: the court **sentenced [fairness]** him in **prison [authority]** ('sentenced' is an action of justice from the court, 'prison' is an action of enforcement of law, executed by the state apparatus)*
*E.g.: **Drunken-driving arrest [authority]** ('arrest' is enforcement of law, issued by police)*
*E.g.: criminals were **arrested [authority]** ('arrest' is enforcement of law, action issued by police for maintaining social order)*
*E.g.: **pending** his **transfer [authority]** to German ('transfer' is an action issued by government)*
*E.g.: the judge **ruled [fairness]** and **convicted [fairness]** his **crime [cheating]** ('conviction' is the action from the judge or court, judgement of law)*

10. difference between cheating and harm:
Cheating is opposed to fairness and violates the moral principle of fairly treating everyone. Harm is opposed to care and violates the moral principle of feeling the pain of others.

*E.g.: He sexual **assaulted [harm]** the girl. ('sexual assaulted' is not opposed to the moral principle of fairly treating everyone. We will not judge this event by judging he only assaulted this girl but not equally assaulted other people. 'sexual assaulted' is opposed to the care principle.)*
*E.g.: The girls are being forcibly **married [harm]** off.*
*E.g.: The kidnappers **called [harm]** the girls as slaves and **threatened [harm]** to **sell [harm]** them in the market and **marry [harm]** them out. (these actions do not have the meaning of unfairly treating, but violates the care principle)*

Thinking about the intention behind the events can help us distinguish cheating and harm.

*E.g.: The gun holder **killed [harm]** a person on the street. (the intention behind killing action is harming other person instead of doing cheating, thus we should select harm as the label)*

11. difference between subversion and harm:
subversion targets at the whole society, harm targets at individual persons

*E.g.: The mob **blew [subversion]** up the government building with the bombs, **rattling [subversion]** nearby buildings and **shattering [subversion]** surrounding windows. (these behaviors target at the whole society, target at destroying the social order)*
*E.g.: During the riots, the mob also **attacked [harm]** innocent people, **killed [harm]** five persons, and **injured [harm]** large number of people. ('attack' 'kill' 'injure', these behaviors target at individual persons)*
*E.g.: Heavily armed riot police **herded [harm]** dozens of **terrified [harm]** men dressed in just the spa's checkered towels through the changing rooms into waiting trucks. Some who were wearing clothes were **forced [harm]** to **strip [harm]** half-naked in front of the TV crew that kept filming, even as the prisoners tried to cover their faces. (these actions mainly affect prisoner individuals instead of the whole society or the general public)*

12. choose authority/subversion only when either the agent or the patient is authority
Authority: either the agent is authority (authority is correctly ruling), or the patient is authority (the public obey the authority)
Subversion: either the agent is authority (authority is misruling and wrongly using the dominating power), or the patient is authority (the public against towards the authority)

When neither the agent nor the patient is authority, which means no authority is involved in the event, the action is from a normal person towards another normal person, then do **not** choose authority/subversion and consider other dimensions instead.

13. Not all the positive/negative actions from the government are authority/subversion.
Positive actions from the government are labeled with authority only when the government is correctly using its dominating power. Negative actions from the government are labeled with subversion only when the government is misusing its dominating power or misruling.

*E.g.: Fortunately, criminals were **arrested [authority]** by the police ('arrested' is the specific action from government showing good dominating power and good social order)*
*E.g.: FBI director described the massive manhunt as an "extraordinary **effort [authority]**" by law enforcement. (from FBI's perspective, he is positively praising the government's ruling)*
*E.g.: There is no **excuse** for police to **use [subversion]** excessive force against peaceful protesters or to **throw [subversion]** protesters in **jail** for lawfully **expressing** their rights. (the author is*

negatively criticizing the event 'use excessive force' and 'throw protesters in jail', because the police authority is misusing the power or misruling)

*E.g.: "It's terrifying and crazy-to know that you are **targeted [cheating]** by your own government for committing no crime other than being sexually different," said Amr Ahmed. ("be targeted for being sexually different" is not about misusing the dominating power, but violates the moral principle of fairly treating everyone)*

The government can use authority action as the method to realize the motivation of care, fairness, loyalty, and purity. We should separately consider the motivation of government and the specific action from government.

*E.g.: The federal and state officials increasingly focus on **reforming [authority]** law enforcement to **cure [care]** people who abuse drug instead of jailing them. ('reforming law enforcement' is the specific action of the government with the motivation to 'cure people'. We should separately consider the motivation and the specific action to realize the motivation. The government uses authority action 'reforming' as a method to realize the motivation of caring people.)*

*E.g.: The federal administration effectively **sent [authority]** troops to **help [care]** the people affected in the Hurricane. (The administration use authority action 'sent troops' as a method to realize the motivation of care 'help people')*

*E.g.: The police **arrested [authority]** the racism person to **prohibit [fairness]** discrimination. (The police use authority action 'arrested' as a method to realize the motivation of fairness)*

*E.g.: Obama's administration continuously **protects [fairness]** minority people's civil rights. (The text can omit the specific action by the government but only mentions the motivation)*

*E.g.: As interpreted by Obama, Kennedy's vision also means '**meeting [purity]** our moral obligations' by **fighting [care]** hunger around the world and **strengthening [care]** public health programs. (The text omits the specific action by the government but only mentions the motivation. Understanding the semantic meaning of the event and choosing the moral label with the closest semantic meaning can help. 'meeting moral obligations' refers to a spiritual belief or moral principle – purity; 'fighting hunger' is closer to caring for other people; 'strengthening public health programs' is closer to care.)*

14. consider moral label for separate events separately, separate the cause or results of the event with the event itself

*E.g.: Democrats are making **frauds [cheating]** to **undermine [subversion]** the results of 2016 **election**. (the event 'undermine the election results' is different from the event 'making frauds', and we should consider the moral for separate events separately. 'frauds' is a typical case of cheating, and the result 'undermine the election results' is overturning the social order.)*

*E.g.: The Democrat party has been aggressively **pushing [subversion]** extreme late-term **abortion**, **allowing [subversion]** children to be **ripped [harm]** from their mother's womb up until the moment of **birth**, and the governor in Virginia would even **allow [subversion]** a newborn baby to be **executed [harm]**. (the event 'pushing' 'abortion' 'allowing' is the pre-condition or cause of the*

event 'ripped' 'executed', however, we should consider the moral for separate events separately, 'ripped' and 'executed' are the events containing harm moral judgement from the author)

15. moral foundation theory is the moral principle for human behavior instead of non-human factors, care/harm caused by nature is not morally care/harm

*E.g.: The United States is experiencing multiple **outbreaks** from California to Florida that will **seed** more **infections** in the weeks and months ahead. ('infections' is a harm from non-human factors, care/harm caused by nature is not morally care/harm)*
*E.g.: We **hope** that summer's warm weather will **help conquer** the **virus**. ('help' is a care from non-human factors, not the morally care principle for human.)*

16. care:
(1) physical care, protect, safeguard, rescue
*E.g.: Church's security team **eliminates [care]** the **threat [harm]** from the suspect. (prevent the harm action is care)*
*E.g.: Church's security team **saved [care]** number of lives. (protect, safeguard, save lives - care)*
*E.g.: The brave men show bravery and courage in the mission to **rescue [care]** their fellow Americans who were being held captive. (rescue represents the care intention)*

(2) mental care, compassion, help, relief, heal
*E.g.: **help [care]** the needy, **protect [care]** our citizens, **care [care]** for our elders*
*E.g.: **Empathy [care]** for other people who might **choose abortion**. (empathy and compassion for other people is about care)*
*E.g.: Obama spoke from the media "Now is time for **peace [care]**". (peace is care)*

17. harm:
(1) physical harm, injure, damage, kill
*E.g.: Mayor **asked** New Yorkers to **report** after the execution-style **killings [harm]** of officers Rafael Ramos. (harm emphasize more at individual-level, killing is action of harm for individuals)*
*E.g.: This would place millions of Americans in **danger [harm]**, particularly the most vulnerable. It would mean more **death [harm]**.*
*E.g.: Ford **said** the supreme court nominee Brett had sexually **assaulted [harm]** her.*
*E.g.: The victim was **attacked [harm]**, **terrified [harm]**, and **threatened [harm]**.*

(2) mentally hurt, cause pain, harass, threaten
*E.g.: **extort [harm]** foreign countries, **hassling [harm]** the people, **threat [harm]** from North Korea*
*E.g.: Democrats are **addressing** other forms of offensive **speech [harm]** and racial **violence [harm]** - particularly the **threat [harm]** of white nationalism. ('speech' as harm, the evidence is 'offensive')*

*E.g.: Ms. Omar has **apologized** for some of her **comments** in the past and **said** she would **learn** from the **pain [harm]** she caused Jewish colleagues. (think from the cited person Ms. Omar's perspective, she has negative moral sentiment towards her action of causing pain)*

*E.g.: Democratic policies that have **destroyed [harm]** inner cities. ('destroy cities' not only harm individual person, but harm a lot of individuals, harm all the people in the cities)*

18. fairness:

(1) equality is fairness

*E.g.: Colorado law **prohibits [fairness] discrimination [cheating]** on the basis of sexual orientation. (prohibit discrimination is preventing inequality, which is fairness)*

*E.g.: I wouldn't have been able to do this without **employing** a woman's right to **choose [fairness]**. (The author is supportive towards the abortion right for women, right implies equality and is a typical type of fairness)*

*E.g.: Women **voting** will **preserve [fairness]** abortion rights. ('rights' is about fairness)*

*E.g.: **Stand, speak,** and **vote** for who you **trust** to **defend [fairness]** our freedom. ('defend the freedom' is about defending the equality freedom right)*

*E.g.: States should make it **easier** for voters to exercise their constitutional right to **vote [fairness]** (the author is supportive towards exercising the constitutional right, right is about fairness)*

*E.g.: The DNC should **let** the primary **process play** out in a manner that would **allow** one man to **claim** a clean **victory [fairness]**. (the article is talking about whether main-in voting process should be counted as valid or not, the event 'clean victory' here is talking about the fair voting process)*

(2) obeying the law justice is fairness

*E.g.: Now is the time to see that **justice [fairness]** is done.*

*E.g.: Judge Titus **said** judges need to **butt** out of politics and **stick [fairness]** to the law.*

*E.g.: **Abortion** is constitutionally **protected [fairness]**. (protected by the constitution law)*

*E.g.: **Stand, speak,** and **vote** for who you **trust** to be **faithful [fairness]** to the constitution. (the target of 'be faithful to' is the constitution law; not loyalty because the target of loyalty is the affiliation group; not purity because the target of purity if the spiritual mental belief.)*

(3) being honest and truthful is fairness

*E.g.: "Unlike fake news CNN, Fox News is **telling [fairness]** us the truth." Trump told the rally.*

*E.g.: Now is the time for an open and transparent **process [fairness]** to see that **justice [fairness]** is done. (a process being open and transparent is fairness)*

*E.g.: It is the only way to **demonstrate [fairness]** to the public what powerful officials are **acting**.*

19. cheating:

(1) not equal is cheating

*E.g.: Colorado law **prohibits [fairness] discrimination [cheating]** on the basis of sexual orientation. (discrimination is unequal treatment, which is cheating)*

*E.g.: We should further **address Islamophobia [cheating]**, **anti-Semitism [cheating]** and **racism [cheating]** in America and our world." ('racism' is cheating because of unfairness, inequality)*

*E.g.: She is being unfairly **singled [cheating]** out when there are others making similar **comments**. ('singled out' is judged with cheating, the evidence is 'unfairly')*
*E.g.: The religious freedom is supposed to mean freedom to **practice** your own faith, not **impose [cheating]** it on anyone else. ('impose' treats anyone else unfairly, not equal, opposite to freedom)*
*E.g.: They **fail** to **recognize** that these women are **prioritizing [cheating]** their whiteness. ('prioritizing whiteness', not equal, unfairness)*

(2) violating the law justice is cheating, escaping from law punishment is cheating
*E.g.: **cross [cheating]** the border illegally (violating the law, the evidence is 'illegally')*
*E.g.: judges in California and New York **crossing [cheating]** constitutional lines*
*E.g.: The Democrats have to **decide** whether they will **continue defrauding [cheating]** the public with partisan **investigation [cheating]**. ('defrauding' is an action of doing cheating and violating the law, 'partisan investigation' is not fair or equal, the evidence is 'partisan')*

(3) telling lies or being dishonest is cheating
*E.g.: The president falsely **claimed [cheating]** that crime in German is way **up**. ('claimed' event is judged with cheating from the author, the evidence is 'falsely')*
*E.g.: His **testimony** before the Senate included conspiracy **mongering [cheating]** and dubious **description [cheating]**.*

20. authority:
(1) the public obey the authority and respect for the social order is authority
*E.g.: People participating in the worship **comply [authority]** with the social distancing orders issued by the local government. (The public obey the authority, follow the social order, respect for the social tradition and social hierarchy is authority)*

(2) dominating power is authority, leadership is authority
*E.g.: government **issuing [authority]** stay-at-home order (the author's stance is positive towards government's action of issuing the order based on local context)*
*E.g.: "A **statement** of **condemnation** is not real leadership," Mr. Greenwood **said**. "Real leadership would be **leading [authority]** a broad-based public **conversation** that **converts** into concrete government **action [authority]**". (think from the cited person Mr. Greenwood's perspective, he has strong positive moral sentiment towards real leadership and government action)*

(3) maintaining social order and fulfilling social role is authority
*E.g.: Trump **said** his jobs plan would **restore [authority] manufacturing** to cities like Detroit and other Midwestern states. ('restore' is the right policy for the government to make according to Trump, government making the right policy is maintaining the social order and fulfilling the right social role)*
*E.g.: Trump's **phaseout [authority]** of Obama DACA program, the **decision [authority]** to **wind [authority]** down DACA in an orderly manner was rational. (the author thought 'phaseout' is the right policy to make, 'wind down DACA' is the right policy to execute, the author has positive moral judgement towards these events)*

*E.g.: FBI director described the massive manhunt as an "extraordinary **effort [authority]"** by law enforcement. (from FBI's perspective, he is positively praising the government's action)*

(4) domain expertise is authority
*E.g.: Scientist have **identified [authority]** the best strategy for covid: **test, trace,** and **isolate**. (There are two types of entities involved in 'authority' label: the active entity providing the authority, and the passive entity accepting the authority. 'Scientist' in this case is the entity providing the authority, and the author is being positive towards this expert providing expertise. Similarly, there are two types of entities involved in 'subversion' label: the active entity causing subversion, and the passive entity undergoing the subversion.)*

21. subversion:
(1) the public against the authority or don't obey the social order is subversion
*E.g.: making **threats [subversion]** to police officers (not harm, because not targeting individuals, but targeting at police, police is a representative of authority, attacking police or threatening police is disrupting social order)*
*E.g.: There is never an excuse for **violence [subversion]** against police.*
*E.g.: **riots [subversion], overthrow [subversion]** our government*

(2) government breakdown is subversion, no matter due to what kind of reasons, anything related to social order destroyed is subversion
*E.g.: it is not possible to **rule** out the risk of a **breakdown [subversion]** of the government.*
*E.g.: ISIS is **amplifying** the **chaos [subversion]** globally. ('chaos' means no social order, social order destroyed is subversion)*

(3) government misruling or making false policies or not fulfilling its social role is also subversion
*E.g.: The German government is making big a **mistake [subversion]**. (Government misruling, being irresponsible, not fulfilling the social role is subversion)*
*E.g.: It is the Democrats fault for being **weak [subversion]** and **ineffective [subversion]** with Border Security and Crime. (Government misruling is judged with subversion)*
*E.g.: The congress introduced meaningless **legislation [subversion]**. (the evidence is 'meaningless', the author thought the congress proposed wrong legislation, not fulfill their social role)*
*E.g.: Is that military **strategy** or a political **transfer [subversion]** of responsibility for **failure [subversion]** onto our next president? ('transfer responsibility' is an action of president taking no responsibility and not fulfilling his social role, 'failure' is the government or president misruling, thus the judgment is subversion)*
*E.g.: There is no **excuse** for police to **use [subversion]** excessive force against peaceful protesters or to **throw [subversion]** protesters in **jail** for lawfully **expressing** their rights. (the author is negatively criticizing the event 'use excessive force' and 'throw protesters in jail', because the police authority is misusing the power or misruling)*

22. loyalty/betrayal dimension emphasizes on ingroup and group affiliation, we should be loyal to the group we belonged to, such as family, community, or nation

*E.g.: The president is **asking** for **understanding** and **support** for his government. ('support' here is not loyalty, because loyalty emphasizes on Ingroup or belonging to a group, people belong to their family / community / country, but don't belong to their government)*
*E.g.: They have **fealty [loyalty]** and **allegiance [loyalty]** to our country*
*E.g.: The brave men who went on that military mission and **risked [loyalty]** their lives in the war were genuine American heroes. (the soldiers risked their lives for the nation is loyalty)*
*E.g.: The soldiers have the willingness to **sacrifice [loyalty]** for their fellow Americans who were being held captive. (sacrifice for their fellow shows loyalty)*

*E.g.: Democratic policies **send [betrayal]** manufacturing jobs to Mexico and other countries.*
*E.g.: Friday's **resignation** of campaign chairman amid **reports** of **lobbying [betrayal]** ties to Ukraine. ('lobbying tie to Ukraine' betrays his own country based on local context)*
*E.g.: Politicians **sell [betrayal]** the poorer citizens out for personal **gain**.*
*E.g.: Trump is **accused** of **colluding [betrayal]** with Russia.*
*E.g.: That is, Trump **placed [betrayal]** his own personal interests ahead of those of the nation. (Discarding the interests of the nation is betrayal to the nation)*

23. purity/degradation dimension emphasizes on the spiritual belief from mental perspective instead of physical. Spiritual belief can exist in the form of religious faith or secular commonsense principles.

*E.g.: He **calls** for putting **faith [purity]** at the center. ('faith' is related to spiritual or religious belief)*
*E.g.: **Thank** God and whomever you **pray** to, that I can **live [purity]** by my faith.*
*E.g.: It is about **conserving [purity]** these eternal truths and principles. (the target 'eternal truths and principles' is the spiritual belief)*

*E.g.: They have **contempt [degradation]** on our honorable common culture. ('contempt' shows degradation on the spiritual belief / honor / culture)*
*E.g.: "I think anyone who would suggest the military mission is not a success does **disservice [degradation]** to the sacrifice of Chief Ryan Owens." Mr. Spicer said. (contempt or disrespect for the soldier's death and sacrifice show degradation)*
*E.g.: **contaminating** the water system (not degradation, because degradation emphasizes more on the spiritual/mental/religious belief, instead of physical)*

24. should consider negation when annotating moral: include negation when understanding the semantic meaning of the events
*E.g.: The security team did not **save [harm]** people's lives. (although we only select one word to represent the event, but we should consider negation meaning when choosing moral label)*