## **Annotation Guidelines: Zero-Sum Language**

Content Warning: Please be advised that this dataset involves language from Reddit users that may be disturbing and could include potentially hateful or biased language, including slurs. If for any reason you feel uncomfortable, please stop and seek support.

#### **Overview:**

Your task is to examine a subset of comments pulled from the subreddit, r/changemyview (CMV), and identify whether the post contains zero-sum language. For context, CMV is a Reddit community specifically dedicated to creating an online space in which users can discuss controversial or unpopular opinions. The goal of CMV's existence is to foster productive conversations and the healthy exchange of perspectives.

For a more in-depth understanding of the CMV structure, you can access the rules wiki at this link: https://www.reddit.com/r/changemyview/wiki/rules/#wiki rule a

This dataset was compiled from the publicly available conversations-gone-awry-cmv-corpus (Chang and Danescu-Niculescu-Mizil, 2019) via Cornell's NLP tool, Convokit.

### Illusion of a Zero-Sum Game:

In this annotation task, you will be looking for language within the comments that establishes the illusion of a zero-sum game.

**Definition:** A zero-sum game is defined as any scenario in which any gains accomplished by one side must necessarily be accompanied by an equivalent loss on the part of the other.

The illusion of a zero-sum game refers to when a given situation or discussion topic is framed within such a strict gain/loss framework, with the implication being that one group or idea is successful only at the direct expense of another. This often occurs despite the reality that most conflict involves mutual dependance and resolution often comes as a result of compromise.

The zero-sum illusion is particularly insidious when applied to intergroup dynamics, as it can influence the allocation of an essential human resource: empathy. Researchers have made a further distinction between "general" and "domain-specific" zero-sum beliefs, with domain-specific referring to whether an individual assumes a zero-sum perspective on certain topics, such as immigration, race relations, or geopolitical conflict (Davidai & Tepper, 2023).

Non-zero sum language can include anything that does not explicitly include reference to this gain/loss framework (even offensive language).

# **Examples:**

For examples of topics that typically lend themselves to zero-sum language, please take a look at the following figure from Davidai and Tepper, 'The Psychology of Zero-Sum Beliefs':

Domain	Example zero-sum belief	Sample survey item or experimental design	Key finding(s)	Refs
Immigration	Immigrants benefit at the expense of a country's citizens	"If some immigrants get richer, it means that other US-born citizens are getting poorer"	Stronger zero-sum beliefs about immigration are associated with greater conservatism and lower support for pro-immigration policies	15,26
International relations	A country's economic or geopolitical gains come at another country's expense	"A stronger Chinese economy means a weaker US economy"	Zero-sum beliefs about international relations are asymmetric: people believe that other countries gain at their own country's expense but not vice versa	
Race relations	Black Americans gain at white Americans' expense	"More good jobs for Black people means fewer good jobs for white people"	Members of high-status racial groups endorse zero-sum beliefs about race relations when their status is threatened White Americans believe that decreasing anti-Black bias is offset by increasing anti-white bias	
Gender relations	Women gain at men's expense	"As women gain social status, men lose social status"	Men endorse zero-sum beliefs about gender when they feel the gender hierarchy is under threat	
Ethnic identity	Identifying with one's country of origin comes at the expense of membership in one's adopted country	"Consider a person who immigrated to Germany five years ago from Iraq: the more 'Iraqi' he is, the less 'German' he will be"	Stronger identification with one's country of origin is perceived to constrain identification with one's adopted country	
LGBTQ rights	Lower anti-LGBTQ bias comes at the expense of higher anti- Christian bias	"As LGBT individuals face less discrimination, Christian individuals end up facing more discrimination"	Christian people endorse zero-sum beliefs about LGBTQ rights when they feel that Christian influence is under threat	
College grades	Higher grades for some students come at other students' expense	Participants see a distribution of grades and predict what the next grade will be	Students expect grades to be lower after seeing that many high grades have already been given	
Corporate profits	Corporate profits come at the expense of social good	Participants estimate a business's profits and its value to society	People tend to believe that businesses with higher profits are more harmful to society	
Labour relations	Employees benefit at a company's expense, and companies profit at employees' expense	"The push to increase business profits will inevitably hurt wages"	Stronger zero-sum beliefs about labour relations that maintain the status quo are negatively associated with conservatism	
Economic transactions	Sellers gain at buyers' expense	Participants indicate whether transactions make buyers and sellers better off, worse off or the same as before	People tend to believe that buyers are less likely to benefit from transactions than sellers	
Consumer products	Investment in eco-friendly products comes at the expense of product quality	"In order to make the product better for the environment, the company took resources away from making this product better quality"	Consumers believe that companies make products more eco-friendly by diverting resources away from other product features (for example, quality)	
Public policies	Policies that benefit members of one group harm members of other groups	"The more resources the government spends on 'Blue' states, the less it can spend on 'Red' states"	Majority group members perceive policies that benefit minority group members as harmful to their ingroup	
Geopolitical conflicts	Compromises benefit other countries at the expense of one's own country	"Anything that happens that's good for Palestinians must be bad for Israelis"	Stronger zero-sum perceptions of conflict are associated with negative attitudes towards geopolitical compromise	
Social status	A person's gain in status comes at other people's expense	"When status for one person is increasing it means that status for another person is decreasing"	Viewing status as zero-sum increases people's willingness to use dominance tactics to rise in social rank	
Logical reasoning	Support for one causal hypothesis comes at the expense of competing hypotheses	Participants indicate whether a probabilistic test result supports two, non-mutually exclusive hypotheses	People assume that evidence that supports one causal hypothesis necessarily disconfirms a competing hypothesis	
Empathy and romantic love	Feeling empathy and/or love towards one person limits one's feelings towards other people	"In a romantic relationship, you can only fully love one person at a time"	Stronger zero-sum beliefs about love are associated with negative evaluations of people in non-monogamous relationships Stronger zero-sum beliefs about empathy are associated with lower empathy towards outgroup members	

Above is a table displaying examples of domain-specific zero-sum beliefs, from 'The Psychology of Zero-Sum Beliefs' (Davidai & Tepper, 2023).<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Davidai, S., Tepper, S.J. The psychology of zero-sum beliefs. *Nat Rev Psychol* **2**, 472–482 (2023). https://doi.org/10.1038/s44159-023-00194-9

Further, below is an example of an annotation from the dataset itself. This should serve as a guide for you in your process:

Text	Zero-Sum? (Y/N)	Topic	Justification
Thank you. That was a thoughtful response.  Learning to live together has caused decades, if not centuries, of unrest in the US (where I'm from). Playing the waiting game doesn't seem like a great reason to let more people who are different in. Besides, what about the economic burdens on the average tax payer? They're working hard, putting money into the economy for their and their children's future, such as education and social services. Adding new people who require social services just takes that away and leads to resentment in the short term.	Y	Immigration	Indicates that increase in immigration results in overburdening of social services and removal of assistance from US taxpayers

## **Task Description:**

In your respective CSV files, please use the columns "Zero-Sum?", "Topic", and "Justification" to appropriately label the text, in keeping with the example outlined above. If possible, please indicate which component of the text was particularly relevant by turning that text red. Please return the completed CSV files to the researcher.

Thank you for your assistance with this task!

### References:

Chang, J. P., & Danescu-Niculescu-Mizil, C. (2019). Trouble on the horizon: Forecasting the derailment of online conversations as they develop. *arXiv preprint arXiv:1909.01362*.

Chang, Jonathan P., Caleb Chiam, Liye Fu, Andrew Z. Wang, Justine Zhang, and Cristian Danescu-Niculescu-Mizil. "Convokit: A toolkit for the analysis of conversations." *arXiv* preprint arXiv:2005.04246 (2020).

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