

Transformer Interpretability Beyond Attention Visualization

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Abstract

Self-attention techniques, and specifically Transformers, are dominating the field of text processing and are becoming increasingly popular in computer vision classification tasks. In order to visualize the parts of the image that led to a certain classification, existing methods either rely on the obtained attention maps or employ heuristic propagation along the attention graph. In this work, we propose a novel way to compute relevancy for Transformer networks. The method assigns local relevance based on the Deep Taylor Decomposition principle and then propagates these relevancy scores through the layers. This propagation involves attention layers and skip connections, which challenge existing methods. Our solution is based on a specific formulation that is shown to maintain the total relevancy across layers. We benchmark our method on very recent visual Transformer networks, as well as on a text classification problem, and demonstrate a clear advantage over the existing explainability methods. Our code is available at: <https://github.com/hila-chefer/Transformer-Explainability>.

1. Introduction

Transformers and derived methods [41, 9, 22, 30] are currently the state-of-the-art methods in almost all NLP benchmarks. The power of these methods has led to their adoption in the field of language and vision [23, 40, 38]. More recently, Transformers have become a leading tool in traditional computer vision tasks, such as object detection [4] and image recognition [6, 11]. The importance of Transformer networks necessitates tools for the visualization of their decision process. Such a visualization can aid in debugging the models, help verify that the models are fair and unbiased, and enable downstream tasks.

The main building block of Transformer networks are self-attention layers [29, 7], which assign a pairwise attention value between every two tokens. In NLP, a token is typically a word or a word part. In vision, each token can be associated with a patch [11, 4]. A common practice when

trying to visualize Transformer models is, therefore, to consider these attentions as a relevancy score [41, 43, 4]. This is usually done for a single attention layer. Another option is to combine multiple layers. Simply averaging the attentions obtained for each token, would lead to blurring of the signal and would not consider the different roles of the layers: deeper layers are more semantic, but each token accumulates additional context each time self-attention is applied. The rollout method [1] is an alternative, which reassigns all attention scores by considering the pairwise attentions and assuming that attentions are combined linearly into subsequent contexts. The method seems to improve results over the utilization of a single attention layer. However, as we show, by relying on simplistic assumptions, irrelevant tokens often become highlighted.

In this work, we follow the line of work that assigns relevancy and propagates it, such that the sum of relevancy is maintained throughout the layers [27]. While the application of such methods to Transformers has been attempted [42], this was done in a partial way that does not propagate attention throughout all layers.

Transformer networks heavily rely on skip connection and attention operators, both involving the mixing of two activation maps, and each leading to unique challenges. Moreover, Transformers apply non-linearities other than ReLU, which result in both positive and negative features. Because of the non-positive values, skip connections lead, if not carefully handled, to numerical instabilities. Methods such as LRP [3] for example, tend to fail in such cases. Self-attention layers form a challenge since a naive propagation through these would not maintain the total amount of relevancy.

We handle these challenges by first introducing a relevancy propagation rule that is applicable to both positive and negative attributions. Second, we present a normalization term for non-parametric layers, such as “add” (*e.g.* skip-connection) and matrix multiplication. Third, we integrate the attention and the relevancy scores, and combine the integrated results for multiple attention blocks.

Many of the interpretability methods used in computer vision are not class-specific in practice, *i.e.*, return the same

visualization regardless of the class one tries to visualize, even for images that contain multiple objects. The class-specific signal, especially for methods that propagate all the way to the input, is often blurred by the salient regions of the image. Some methods avoid this by not propagating to the lower layers [32], while other methods contrast different classes to emphasize the differences [15]. Our method provides the class-based separation by design and it is the only Transformer visualization method, as far as we can ascertain, that presents this property.

Explainability, interpretability, and relevance are not uniformly defined in the literature [26]. For example, it is not clear if one would expect the resulting image to contain all of the pixels of the identified object, which would lead to better downstream tasks [21] and for favorable human impressions, or to identify the sparse image locations that cause the predicted label to dominate. While some methods offer a clear theoretical framework [24], these rely on specific assumptions and often do not lead to better performance on real data. Our approach is a mechanistic one and avoids controversial issues. Our goal is to improve the performance on the acceptable benchmarks of the field. This goal is achieved on a diverse and complementary set of computer vision benchmarks, representing multiple approaches to explainability.

These benchmarks include image segmentation on a subset of the ImageNet dataset, as well as positive and negative perturbations on the ImageNet validation set. In NLP, we consider a public NLP explainability benchmark [10]. In this benchmark, the task is to identify the excerpt that was marked by humans as leading to a decision.

2. Related Work

Explainability in computer vision Many methods were suggested for generating a heatmap that indicates local relevancy, given an input image and a CNN. Most of these methods belong to one of two classes: gradient methods and attribution methods.

Gradient based methods are based on the gradients with respect to the input of each layer, as computed through backpropagation. The gradient is often multiplied by the input activations, which was first done in the Gradient*Input method [34]. Integrated Gradients [39] also compute the multiplication of the inputs with their derivatives. However, this computation is done on the average gradient and a linear interpolation of the input. SmoothGrad [36], visualizes the mean gradients of the input, and performs smoothing by adding to the input image a random Gaussian noise at each iteration. The FullGrad method [37] offers a more complete modeling of the gradient by also considering the gradient with respect to the bias term, and not just with respect to the input. We observe that these methods are all class-agnostic: at least in practice, similar outputs are obtained,

regardless of the class used to compute the gradient that is being propagated.

The GradCAM method [32] is a class-specific approach, which combines both the input features and the gradients of a network’s layer. Being class-specific, and providing consistent results, this method is used by downstream applications, such as weakly-supervised semantic segmentation [21]. However, the method’s computation is based only on the gradients of the deepest layers. The result, obtained by upsampling these low-spatial resolution layers, is coarse.

A second class of methods, the *Attribution propagation* methods, are justified theoretically by the Deep Taylor Decomposition (DTD) framework [27]. Such methods decompose, in a recursive manner, the decision made by the network, into the contributions of the previous layers, all the way to the elements of the network’s input. The Layer-wise Relevance Propagation (LRP) method [2], propagates relevance from the predicated class, backward, to the input image based on the DTD principle. This assumes that the rectified linear unit (ReLU) non-linearity is used. Since Transformers typically rely on other types of applications, our method has to apply DTD differently. Other variants of attribution methods include RAP [28], AGF [17], DeepLIFT [33], and DeepSHAP [24]. A disadvantage of some of these methods is the class-agnostic behavior observed in practice [20]. Class-specific behavior is obtained by Contrastive-LRP (CLRP) [15] and Softmax-Gradient-LRP (SGLRP) [20]. In both cases, the LRP propagation results of the class to be visualized are contrasted with the results of all other classes, to emphasize the differences and produce a class-dependent heatmap. Our method is class-specific by construction and not by adding additional contrasting stages.

Methods that do not fall into these two main categories include saliency based methods [8, 35, 25, 48, 45, 47], Activation Maximization [12] and Excitation Backprop [46]. Perturbation methods [13, 14] consider the change to the decision of the network, as small changes are applied to the input. Such methods are intuitive and applicable to black-box models (no need to inspect either the activations or the gradients). However, the process of generating the heatmap is computationally expensive. In the context of Transformers, it is not clear how to apply these correctly to discrete tokens, such as in text. Shapley-value methods [24] have a solid theoretical justification. However, such methods suffer from a large computational complexity and their accuracy is often not as high as other methods. Several variants have been proposed, which improve both aspects [5].

Explainability for Transformers There are not many contributions that explore the field of visualization for Transformers and, as mentioned, many contributions employ the attention scores themselves. This practice ignores

most of the attention components, as well as the parts of the networks that perform other types of computation. A self-attention head involves the computation of queries, keys, and values. Reducing it only to the obtained attention scores (inner products of queries and keys) is myopic. Other layers are not even considered. Our method, in contrast, propagates through all layers from the decision back to the input.

LRP was applied for Transformers based on the premise that considering mean attention heads is not optimal due to different relevance of the attention heads in each layer [42]. However, this was done in a limiting way, in which no relevance scores were propagated back to the input, thus providing partial information on the relevance of each head. We note that the relevancy scores were not directly evaluated, only used for visualization of the relative importance and for pruning less relevant attention heads.

The main challenge in assigning attributions based on attentions is that attentions are combining non-linearly from one layer to the next. The rollout method [1] assumes that attentions are combined linearly and considers paths along the pairwise attention graph. We observe that this method often leads to an emphasis on irrelevant tokens since even average attention scores can be attenuated. The method also fails to distinguish between positive and negative contributions to the decision. Without such a distinction, one can mix between the two and obtain high relevancy scores, when the contributions should have cancelled out. Despite these shortcomings, the method was already applied by others [11] to obtain integrated attention maps.

Abnar et al. [1] present, in addition to rollout, a second method called attention flow. The latter considers the max-flow problem along the pair-wise attention graph. It is shown to be sometimes more correlated than the rollout method with relevance scores that are obtained by applying masking, or with gradients with respect to the input. This method is much slower and we did not evaluate it in our experiments for computational reasons.

We note this concurrent work [1] did not perform an evaluation on benchmarks (for either rollout or attention-flow) in which relevancy is assigned in a way that is independent of the BERT [9] network, for which the methods were employed. There was also no comparison to relevancy assignment methods, other than the raw attention scores.

3. Method

The method employs LRP-based relevance to compute scores for each attention head in each layer of a Transformer model [41]. It then integrates these scores throughout the attention graph, by incorporating both relevancy and gradient information, in a way that iteratively removes the negative contributions. The result is a class-specific visualization for self-attention models.

3.1. Relevance and gradients

Let C be the number of classes in the classification head, and $t \in 1 \dots |C|$ the class to be visualized. We propagate relevance and gradients with respect to class t , which is not necessarily the predicted class. Following literature convention, we denote $x^{(n)}$ as the input of layer $L^{(n)}$, where $n \in [1 \dots N]$ is the layer index in a network that consists of N layers, $x^{(N)}$ is the input to the network, and $x^{(1)}$ is the output of the network.

Recalling the chain-rule, we propagate gradients with respect to the classifier’s output y , at class t , namely y_t :

$$\nabla x_j^{(n)} := \frac{\partial y_t}{\partial x_j^{(n)}} = \sum_i \frac{\partial y_t}{\partial x_i^{(n-1)}} \frac{\partial x_i^{(n-1)}}{\partial x_j^{(n)}} \quad (1)$$

where the index j corresponds to elements in $x^{(n)}$, and i corresponds to elements in $x^{(n-1)}$.

We denote by $L^{(n)}(\mathbf{X}, \mathbf{Y})$ the layer’s operation on two tensors \mathbf{X} and \mathbf{Y} . Typically, the two tensors are the input feature map and weights for layer n . Relevance propagation follows the generic Deep Taylor Decomposition [27]:

$$\begin{aligned} R_j^{(n)} &= \mathcal{G}(\mathbf{X}, \mathbf{Y}, R^{(n-1)}) \\ &= \sum_i \mathbf{X}_j \frac{\partial L_i^{(n)}(\mathbf{X}, \mathbf{Y})}{\partial \mathbf{X}_j} \frac{R_i^{(n-1)}}{L_i^{(n)}(\mathbf{X}, \mathbf{Y})}, \end{aligned} \quad (2)$$

where, similarly to Eq. 1, the index j corresponds to elements in $R^{(n)}$, and i corresponds to elements in $R^{(n-1)}$. Eq. 2 satisfies the conservation rule [27], i.e.:

$$\sum_j R_j^{(n)} = \sum_i R_i^{(n-1)} \quad (3)$$

LRP [2] assumes ReLU non-linearity activations, resulting in non-negative feature maps, where the relevance propagation rule can be defined as follows:

$$R_j^{(n)} = \mathcal{G}(x^+, w^+, R^{(n-1)}) = \sum_i \frac{x_j^+ w_{ji}^+}{\sum_{j'} x_{j'}^+ w_{j'i}^+} R_i^{(n-1)} \quad (4)$$

where $\mathbf{X} = x$ and $\mathbf{Y} = w$ are the layer’s input and weights. The superscript denotes the operation $\max(0, v)$ as v^+ .

Non-linearities other than ReLU, such as GELU [18], output both positive and negative values. To address this, LRP propagation in Eq. 4 can be modified by constructing a subset of indices $q = \{(i, j) | x_j w_{ji} \geq 0\}$, resulting in the following relevance propagation:

$$\begin{aligned} R_j^{(n)} &= \mathcal{G}_q(x, w, q, R^{(n-1)}) \\ &= \sum_{\{i|(i,j) \in q\}} \frac{x_j w_{ji}}{\sum_{\{j'|(j',i) \in q\}} x_{j'} w_{j'i}} R_i^{(n-1)} \end{aligned} \quad (5)$$

In other words, we consider only the elements that have a positive weighed relevance.

To initialize the relevance propagation, we set $R^{(0)} = \mathbb{1}_t$, where $\mathbb{1}_t$ is a one-hot indicating the target class t .

3.2. Non parametric relevance propagation:

There are two operators in Transformer models that involve mixing of two feature map tensors (as opposed to a feature map with a learned tensor): skip connections and matrix multiplications (*e.g.* in attention modules). The two operators require the propagation of relevance through both input tensors. Note that the two tensors may be of different shapes in the case of matrix multiplication.

Given two tensors u and v , we compute the relevance propagation of these binary operators (*i.e.*, operators that process two operands), as follows:

$$R_j^{u(n)} = \mathcal{G}(u, v, R^{(n-1)}), \quad R_k^{v(n)} = \mathcal{G}(v, u, R^{(n-1)}) \quad (6)$$

where $R_j^{u(n)}$ and $R_k^{v(n)}$ are the relevances for u and v respectively. These operations yield both positive and negative values.

The following lemma shows that for the case of addition, the conservation rule is preserved, *i.e.*,

$$\sum_j R_j^{u(n)} + \sum_k R_k^{v(n)} = \sum_i R_i^{(n-1)}. \quad (7)$$

However, this is not the case for matrix multiplication.

Lemma 1. *Given two tensors u and v , consider the relevances that are computed according to Eq. 1. Then, (i) if layer $L^{(n)}$ adds the two tensors, *i.e.*, $L^{(n)}(u, v) = u + v$ then the conservation rule of Eq. 2 is maintained. (ii) if the layer performs matrix multiplication $L^{(n)}(u, v) = uv$, then Eq. 2 does not hold in general.*

Proof. (i) and (ii) are obtained from the output derivative of $L^{(n)}$ with respect to \mathbf{X} . In an add layer, u and v are independent of each other, while in matrix multiplication they are connected. A detailed proof of Lemma 3 is available in the supplementary. \square

When propagating relevance of skip connections, we encounter numerical instabilities. This arises despite the fact that, by the conservation rule of the addition operator, the sum of relevance scores is constant. The underlying reason is that the relevance scores tend to obtain large absolute values, due to the way they are computed (Eq. 2). To see this, consider the following example:

$$u = \begin{pmatrix} e^a \\ e^b \end{pmatrix}, \quad v = \begin{pmatrix} 1 - e^a \\ 1 - e^b \end{pmatrix}, \quad R = \begin{pmatrix} 1 \\ 1 \end{pmatrix} \quad (8)$$

$$R^u = \begin{pmatrix} \frac{e^a}{e^a - e^a + 1} \\ \frac{e^b}{e^b - e^b + 1} \end{pmatrix} = \begin{pmatrix} e^a \\ e^b \end{pmatrix}, \quad R^v = \begin{pmatrix} 1 - e^a \\ 1 - e^b \end{pmatrix} \quad (9)$$

where a and b are large positive numbers. It is easy to verify that $\sum R^u + \sum R^v = e^a + 1 - e^a + e^b + 1 - e^b = \sum R$. As can be seen, while the conservation rule is preserved, the relevance scores of u and v may explode. See supplementary for a step by step computation.

To address the lack of conservation in the attention mechanism due to matrix multiplication, and the numerical issues of the skip connections, our method applies a normalization to $R_j^{u(n)}$ and $R_k^{v(n)}$:

$$\bar{R}_j^{u(n)} = R_j^{u(n)} \frac{\left| \sum_j R_j^{u(n)} \right|}{\left| \sum_j R_j^{u(n)} \right| + \left| \sum_k R_k^{v(n)} \right|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_j R_j^{u(n)}} \\ \bar{R}_k^{v(n)} = R_k^{v(n)} \frac{\left| \sum_k R_k^{v(n)} \right|}{\left| \sum_j R_j^{u(n)} \right| + \left| \sum_k R_k^{v(n)} \right|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_k R_k^{v(n)}}$$

Following the conservation rule (Eq. 3), and the initial relevance, we obtain $\sum_i R_i^{(n)} = 1$ for each layer n .

The following lemma presents the properties of the normalized relevancy scores.

Lemma 2. *The normalization technique upholds the following properties: (i) it maintains the conservation rule, *i.e.*: $\sum_j \bar{R}_j^{u(n)} + \sum_k \bar{R}_k^{v(n)} = \sum_i R_i^{(n-1)}$, (ii) it bounds the relevance sum of each tensor such that:*

$$0 \leq \sum_j \bar{R}_j^{u(n)}, \sum_k \bar{R}_k^{v(n)} \leq \sum_i R_i^{(n-1)} \quad (10)$$

Proof. See supplementary. \square

3.3. Relevance and gradient diffusion

Let M be a Transformer model consisting of B blocks, where each block b is composed of self-attention, skip connections, and additional linear and normalization layers in a certain assembly. The model takes as an input a sequence of s tokens, each of dimension d , with a special token for classification, commonly identified as the token [CLS]. M outputs a classification probability vector y of length C , computed using the classification token. The self-attention module operates on a small sub-space d_h of the embedding dimension d , where h is the number of “heads”, such that $hd_h = d$. The self-attention module is defined as follows:

$$\mathbf{A}^{(b)} = \text{softmax}\left(\frac{\mathbf{Q}^{(b)} \cdot \mathbf{K}^{(b)T}}{\sqrt{d_h}}\right) \quad (11)$$

$$\mathbf{O}^{(b)} = \mathbf{A}^{(b)} \cdot \mathbf{V}^{(b)} \quad (12)$$

where (\cdot) denotes matrix multiplication, $\mathbf{O}^{(b)} \in \mathbb{R}^{h \times s \times d_h}$ is the output of the attention module in block b , $\mathbf{Q}^{(b)}, \mathbf{K}^{(b)}, \mathbf{V}^{(b)} \in \mathbb{R}^{h \times s \times d_h}$ are the query key and value

inputs in block b , namely, different projections of an input $x^{(n)}$ for a self-attention module. $\mathbf{A}^{(b)} \in \mathbb{R}^{h \times s \times s}$ is the attention map of block b , where row i represents the attention coefficients of each token in the input with respect to the token i . The *softmax* in Eq. 11 is applied, such that the sum of each row in each attention head of $\mathbf{A}^{(b)}$ is one.

Following the propagation procedure of relevance and gradients, each attention map $\mathbf{A}^{(b)}$ has its gradients $\nabla \mathbf{A}^{(b)}$, and relevance $R^{(n_b)}$, with respect to a target class t , where n_b is the layer that corresponds to the *softmax* operation in Eq. 11 of block b , and $R^{(n_b)}$ is the layer's relevance.

The final output $\mathbf{C} \in \mathbb{R}^{s \times s}$ of our method is then defined by the weighted attention relevance:

$$\bar{\mathbf{A}}^{(b)} = I + \mathbb{E}_h(\nabla \mathbf{A}^{(b)} \odot R^{(n_b)})^+ \quad (13)$$

$$\mathbf{C} = \bar{\mathbf{A}}^{(1)} \cdot \bar{\mathbf{A}}^{(2)} \cdot \dots \cdot \bar{\mathbf{A}}^{(B)} \quad (14)$$

where \odot is the Hadamard product, and \mathbb{E}_h is the mean across the “heads” dimension. In order to compute the weighted attention relevance, we consider only the positive values of the gradients-relevance multiplication, resembling positive relevance. To account for the skip connections in the Transformer block, we add the identity matrix to avoid self inhibition for each token.

For comparison, using the same notation, the rollout [1] method is given by:

$$\hat{\mathbf{A}}^{(b)} = I + \mathbb{E}_h \mathbf{A}^{(b)} \quad (15)$$

$$\text{rollout} = \hat{\mathbf{A}}^{(1)} \cdot \hat{\mathbf{A}}^{(2)} \cdot \dots \cdot \hat{\mathbf{A}}^{(B)} \quad (16)$$

We can observe that the result of rollout is fixed given an input sample, regardless of the target class to be visualized. In addition, it does not consider any signal, except for the pairwise attention scores.

3.4. Obtaining the image relevance map

The resulting explanation of our method is a matrix \mathbf{C} of size $s \times s$, where s represents the sequence length of the input fed to the Transformer. Each row corresponds to a relevance map for each token given the other tokens - following the attention computation convention in Eq. 14, 11. Since this work focuses on classification models, only the [CLS] token, which encapsulates the explanation of the classification, is considered. The relevance map is, therefore, derived from the row $\mathbf{C}_{[\text{CLS}]} \in \mathbb{R}^s$ that corresponds to the [CLS] token. This row contains a score evaluating each token’s influence on the classification token.

We consider only the tokens that correspond to the actual input, without special tokens, such as the [CLS] token and other separators. In vision models, such as ViT [11], the content tokens represent image patches. To obtain the final relevance map, we reshape the sequence to the patches grid size, *e.g.* for a square image, the patch grid size is $\sqrt{s-1} \times \sqrt{s-1}$. This map is upsampled back to the size of the original image using bilinear interpolation.

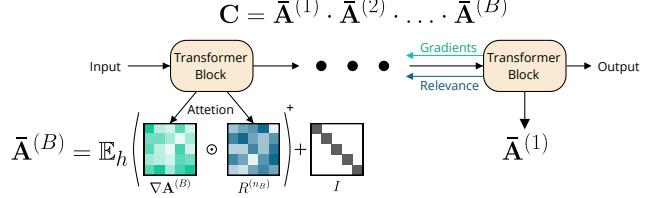


Figure 1: Illustration of our method. Gradients and relevancies are propagated through the network, and integrated to produce the final relevancy maps, as described in Eq. 13, 14.

4. Experiments

For the linguistic classification task, we experiment with the BERT-base [9] model as our classifier, assuming a maximum of 512 tokens, and a classification token [CLS] that is used as the input to the classification head.

For the visual classification task, we experiment with the pretrained ViT-base [11] model, which consists of a BERT-like model. The input is a sequence of all non-overlapping patches of size 16×16 of the input image, followed by flattening and linear layers, to produce a sequence of vectors. Similar to BERT, a classification token [CLS] is appended at the beginning of the sequence and used for classification.

The **baselines** are divided into three classes: attention-maps, relevance, and gradient-based methods. Each has different properties and assumptions over the architecture and propagation of information in the network. To best reflect the performance of different baselines, we focus on methods that are both common in the explainability literature, and applicable to the extensive tests we report in this section, *e.g.* Black-box methods, such as Perturbation and Shapely based methods, are computationally too expensive and inherently different from the proposed method. We briefly describe each baseline in the following section and the different experiments for each domain.

The attention-map baselines include rollout [1], following Eq. 16, which produces an explanation that takes into account all the attention-maps computed along the forward-pass. A more straightforward method is raw attention, *i.e.* using the attention map of block 1 to extract the relevance scores. These methods are class-agnostic by definition.

Unlike attention-map based methods, the relevance propagation methods consider the information flow through the entire network, and not just the attention maps. These baselines include Eq. 4 and the partial application of LRP that follows [42]. As we show in our experiments, the different variants of the LRP method are practically class-agnostic, meaning the visualization remains approximately the same for different target classes.

A common class-specific explanation method is Grad-CAM [32], which computes a weighted gradient-feature-map to the last convolution layer in a CNN model. The best

way we found to apply GradCAM was to treat the last attention layer’s [CLS] token as the designated feature map, without considering the [CLS] token itself. We note that the last output of a Transformer model (before the classification head), is a tensor $v \in \mathbb{R}^{s \times d}$, where the first dimension relates to different input tokens, and only the [CLS] token is fed to the classification head. Thus, performing GradCAM on v will impose a sparse gradients tensor ∇v , with zeros for all tokens, except [CLS].

Evaluation settings For the visual domain, we follow the convention of reporting results for negative and positive perturbations, as well as showing results for segmentation, which can be seen as a general case of “The Pointing-Game” [19]. The dataset used is the validation set of ImageNet [31] (ILSVRC) 2012, consisting of 50K images from 1000 classes, and an annotated subset of ImageNet called ImageNet-Segmentation [16], containing 4,276 images from 445 categories. For the linguistic domain, we follow ERASER [10] and evaluate the reasoning for the Movies Reviews [44] dataset, which consists of 1600/200/200 reviews for train/val/test. This task is a binary sentiment analysis task. Providing explanations for question answering and entailment tasks of the other datasets in ERASER, which require input sizes of more than 512 tokens (the limit of our BERT model), is left for future work.

The positive and negative perturbation tests follow a two-stage setting. First, a pre-trained network is used for extracting visualizations for the validation set of ImageNet. Second, we gradually mask out the pixels of the input image and measure the mean top-1 accuracy of the network. In positive perturbation, pixels are masked from the highest relevance to the lowest, while in the negative version, from lowest to highest. In positive perturbation, one expects to see a steep decrease in performance, which indicates that the masked pixels are important to the classification score. In negative perturbation, a good explanation would maintain the accuracy of the model, while removing pixels that are not related to the class. In both cases, we measure the area-under-the-curve (AUC), for erasing between 10% – 90% of the pixels.

The two tests can be applied to the predicted or the ground-truth class. Class-specific methods are expected to gain performance in the latter case, while class-agnostic methods would present similar performance in both tests.

The segmentation tests consider each visualization as a soft-segmentation of the image, and compare it to the ground truth segmentation of the ImageNet-Segmentation dataset. Performance is measured by (i) pixel-accuracy, obtained after thresholding each visualization by the mean value, (ii) mean-intersection-over-union (mIoU), and (iii) mean-Average-Precision (mAP), which uses the soft-segmentation to obtain a score that is threshold-agnostic.

The NLP benchmark follows the evaluation setting of

ERASER [10] for rationales extraction, where the goal is to extract parts of the input that support the (ground truth) classification. The BERT model is first fine-tuned on the training set of the Movie Reviews Dataset and the various evaluation methods are applied to its results on the test set. We report the token-F1 score, which is best suited for per-token explanation (in contrast to explanations that extract an excerpt). To best illustrate the performance of each method, we consider a token to be part of the “rationale” if it is part of the top-k tokens, and show results for $k = 10 \dots 80$ in steps of 10 tokens. This way, we do not employ thresholding that may benefit some methods over others.

4.1. Results

Qualitative evaluation Fig. 2 presents a visual comparison between our method and the various baselines. As can be seen, the baseline methods produce inconsistent performance, while our method results in a much clearer and consistent visualization.

In order to show that our method is class-specific, we show in Fig. 3 images with two objects, each from a different class. As can be seen, all methods, except GradCAM, produce similar visualization for each class, while our method provides two different and accurate visualizations.

Perturbation tests Tab. 1 presents the AUC obtained for both negative and positive perturbation tests, for both the predicted and the target class. As can be seen, our method achieves better performance by a large margin in both tests. Notice that because rollout and raw attention produce constant visualization given an input image, we omit their scores in the target-class test.

Segmentation The segmentation metrics (pixel-accuracy, mAP, and mIoU) on ImageNet-segmentation are shown in Tab. 2. As can be seen, our method outperforms all baselines by a significant margin.

Language reasoning Fig. 4 depicts the performance on the Movie Reviews “rationales” experiment, evaluating for top-K tokens, ranging from 10 to 80. As can be seen, while all methods benefit from increasing the amount tokens, our method consistently outperforms the baselines. See supplementary for a depiction of the obtained visualization.

Ablation study. We consider three variants of our method and present their performance on the segmentation and predicted class perturbation experiments. (i) Ours w/o $\nabla \mathbf{A}^{(b)}$, which modifies Eq. 13 s.t. we use $\mathbf{A}^{(b)}$ instead of $\nabla \mathbf{A}^{(b)}$, (ii) $\nabla \mathbf{A}^{(1)} \mathbf{R}^{(n_1)}$, i.e. disregarding rollout in Eq. 14, and using our method only on block 1, which is the block closest to the output, and (iii) $\nabla \mathbf{A}^{(B-1)} \mathbf{R}^{(n_{B-1})}$ which similar to (ii), only for block $B - 1$ which is closer to the input.

As can be seen in Tab. 3 the ablation $\nabla \mathbf{A}^{(1)} \mathbf{R}^{(n_1)}$ in which one removes the rollout component, i.e., Eq. 14,

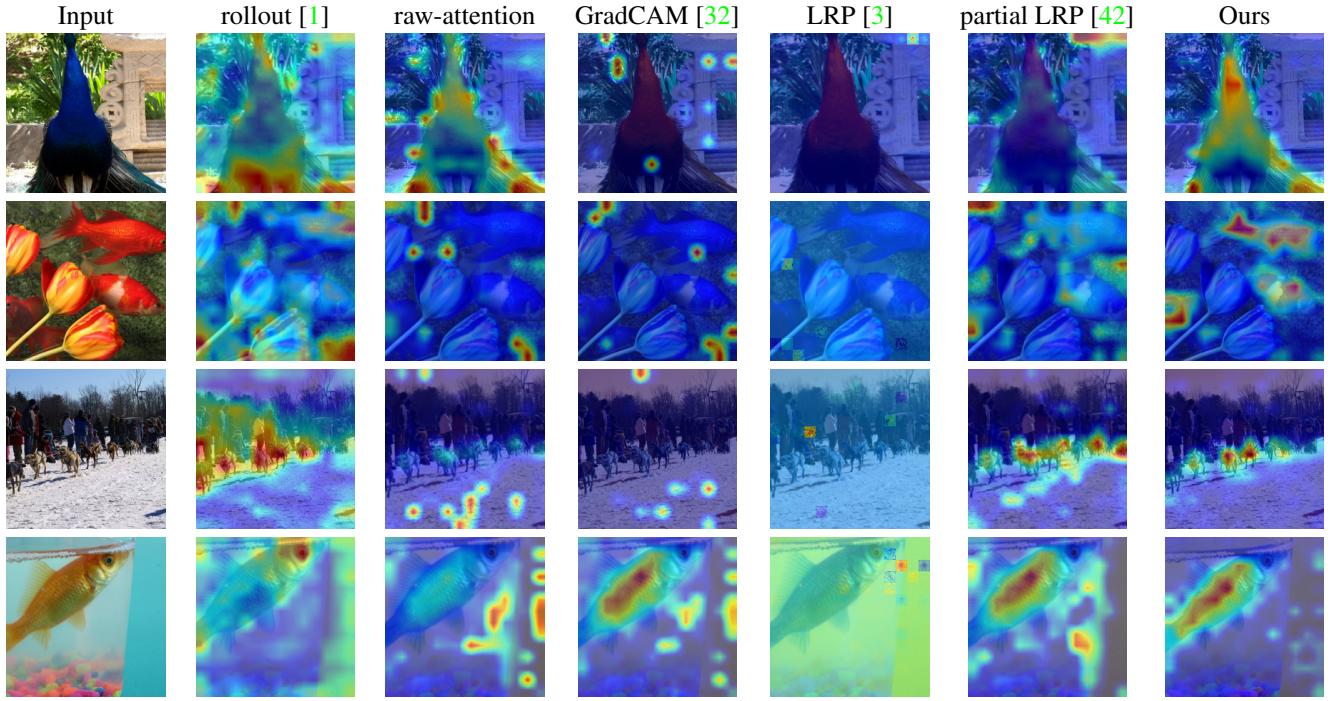


Figure 2: Sample results. As can be seen, our method produces more accurate visualizations.

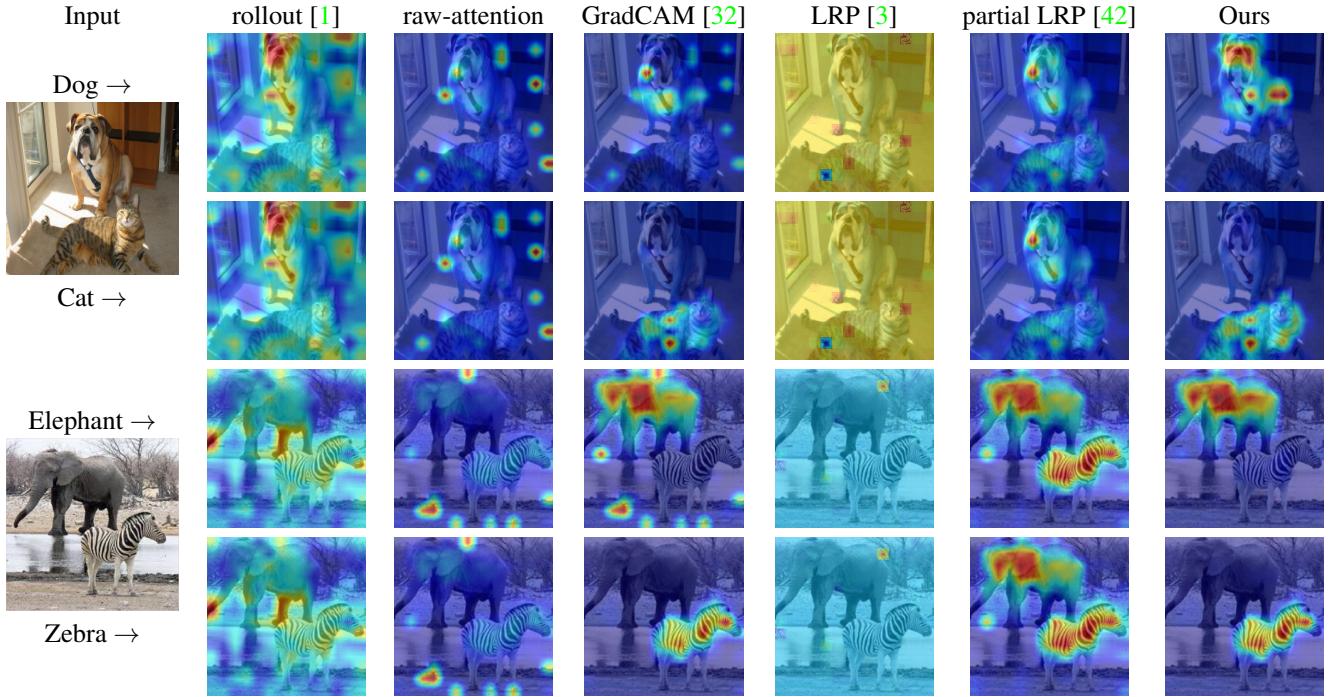


Figure 3: Class-specific visualizations. For each image we present results for two different classes. GradCam is the only method to generate different maps. However, its results are not convincing.

		rollout [1]	raw attention	GradCAM [32]	LRP [3]	partial LRP [42]	Ours
Negative	Predicted	53.1	45.55	41.52	43.49	50.49	54.16
	Target	-	-	42.02	43.49	50.49	55.04
Positive	Predicted	20.05	23.99	34.06	41.94	19.64	17.03
	Target	-	-	33.56	41.93	19.64	16.04

Table 1: Positive and Negative perturbation AUC results (percents) for the predicted and target classes, on the ImageNet [31] validation set. For positive perturbation lower is better, and for negative perturbation higher is better.

	rollout [1]	raw attention	GradCAM [32]	LRP [3]	partial LRP [42]	Ours
pixel accuracy	73.54	67.84	64.44	51.09	76.31	79.70
mAP	84.76	80.24	71.60	55.68	84.67	86.03
mIoU	55.42	46.37	40.82	32.89	57.94	61.95

Table 2: Segmentation performance on the ImageNet-segmentation [16] dataset (percent). Higher is better.

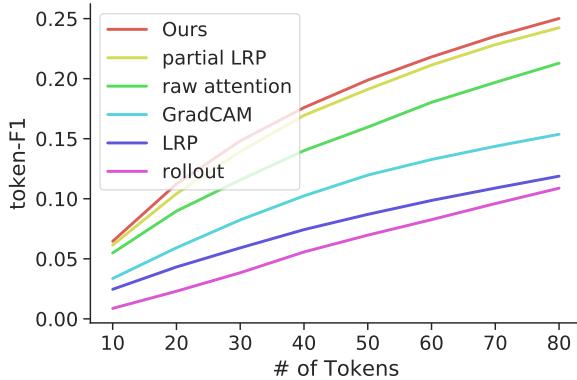


Figure 4: token-F1 scores on the Movie Reviews reasoning task.

	Segmentation			Perturbations	
	Acc.	mAP	mIoU	Pos.	Neg.
Ours w/o $\nabla \mathbf{A}^{(b)}$	77.66	85.66	59.88	18.23	52.88
$\nabla \mathbf{A}^{(1)} \mathbf{R}^{(n_1)}$	78.32	85.25	59.93	18.01	52.43
$\nabla \mathbf{A}^{(B-1)} \mathbf{R}^{(n_{B-1})}$	60.30	73.63	39.06	27.33	37.42
Ours	79.70	86.03	61.95	17.03	54.16

Table 3: Performance of different variants of our method.

while keeping the relevance and gradient integration, and only considering the last attention layer, leads to a moderate drop in performance. Out of the two single block visualizations ((ii), and (iii)), the combined attention gradient and relevancy at the $b = 1$ block, which is the closest to the output, is more informative than the block closest to the input. This is the same block that is being used for the raw-attention, partial LRP, and the GradCAM methods. The ablation that considers only this block outperforms these

methods, indicating that the advantage of our method stems mostly from the combination of relevancy as we compute it and attention-map gradients.

5. Conclusions

The self-attention mechanism links each of the tokens to the [CLS] token. The strength of this attention link can be intuitively considered as an indicator of the contribution of each token to the classification. While this is intuitive, given the term “attention”, the attention values reflect only one aspect of the Transformer network or even of the self-attention head. As we demonstrate, both when using a fine-tuned BERT model for NLP and with the ViT model, attentions lead to fragmented and non-competitive explanations.

Despite this shortcoming and the importance of Transformer models, the literature with regards to interpretability of Transformers is sparse. In comparison to CNNs, multiple factors prevent methods developed for other forms of neural networks (not including the slower black-box methods) from being applied. These include the use of non-positive activation functions, the frequent use of skip connections, and the challenge of modeling the matrix multiplication that is used in self-attention.

Our method provides specific solutions to each of these challenges and obtains state-of-the-art results when compared to the methods of the Transformer literature, the LRP method, and the GradCam method, which can be applied directly to Transformers.

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Master thesis research conducted at Tel Aviv University.

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A. Details of the various Baselines

GradCAM As mentioned in Sec. 4, we consider the last attention layer (closest to the output) - namely $\mathbf{A}^{(1)}$. This results in a feature-map of size $h \times s \times s$. Following the process described in Sec. 3.4, we take only the [CLS] token's row (without the [CLS] token's column), and reshape to the patches grid size $h_p \times w_p$. This results in a feature-map similar to the 2D feature-map used for GradCAM, where the number of channels, in this case, is h , and the height and width are h_p and w_p . The reason we use the last attention layer is because of the sparse gradients issue described in Sec. 4.

raw-attention The raw-attention method visualizes the last attention layer (closest to the output) - namely $\mathbf{A}^{(1)}$. It follows the process described in Sec. 3.4 to extract the final output.

LRP In this method, we propagate relevance up to the input image, following the propagation rules of LRP (not our modified rules and normalizations).

partial-LRP Following [42], we visualize an intermediate relevance map, more specifically, we visualize the last attention-map's relevance, namely $R^{(n_1)}$, using LRP propagation rules.

rollout We follow Eq. 16.

B. Proofs for Lemmas

Given two tensors u and v , we compute the relevance propagation of binary operators (*i.e.*, operators that process two operands) as follows:

$$\begin{aligned} R_j^{u^{(n)}} &= \mathcal{G}(u, v, R^{(n-1)}) \\ R_k^{v^{(n)}} &= \mathcal{G}(v, u, R^{(n-1)}) \end{aligned} \quad (1)$$

where $R_j^{u^{(n)}}$ and $R_k^{v^{(n)}}$ are the relevances for u and v respectively.

The following lemma shows that for the case of addition, the conservation rule is preserved, *i.e.*,

$$\sum_j R_j^{u^{(n)}} + \sum_k R_k^{v^{(n)}} = \sum_i R_i^{(n-1)}. \quad (2)$$

However, this is not the case for matrix multiplication.

Lemma 3. *Given two tensors u and v , consider the relevances that are computed according to Eq. 1. Then, (i) if layer $L^{(n)}$ adds the two tensors, *i.e.*, $L^{(n)}(u, v) = u + v$ then the conservation rule of Eq. 2 is maintained. (ii) if the layer performs matrix multiplication $L^{(n)}(u, v) = uv$, then Eq. 2 does not hold in general.*

Proof. For part (i), we note that the number of elements in u equals the number of elements in v , therefore $k = j$, and we can write Eq. 2 following the definition of \mathcal{G} :

$$\begin{aligned} &\sum_j \sum_i u_j \frac{\partial(u_i + v_i)}{\partial u_j} \frac{R_i^{(n-1)}}{u_i + v_i} + \sum_j \sum_i v_j \frac{\partial(u_i + v_i)}{\partial v_j} \frac{R_i^{(n-1)}}{u_i + v_i} \\ &= \sum_j \frac{u_j}{u_j + v_j} R_j^{(n-1)} + \sum_j \frac{v_j}{u_j + v_j} R_j^{(n-1)} \\ &= \sum_j \frac{u_j + v_j}{u_j + v_j} R_j^{(n-1)} = \sum_j R_j^{(n-1)} \end{aligned} \quad (3)$$

note that, in this case, it is possible that $\sum_j R_j^{u^{(n)}} \neq \sum_j R_j^{v^{(n)}}$.

As shown in the main text, while the sum of two tensors maintains the conservation rule, their values may explode. Consider $u = \begin{pmatrix} e^a \\ e^b \end{pmatrix}$, $v = \begin{pmatrix} 1 - e^a \\ 1 - e^b \end{pmatrix}$ and $R = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$, following the definition of \mathcal{G} we have:

$$\begin{aligned} R_j^{u^{(n)}} &= \sum_i u_j \frac{\partial(u_i + v_i)}{\partial u_j} \frac{R_i^{(n-1)}}{u_i + v_i} = \frac{u_j}{u_j + v_j} R_j^{(n-1)}, \quad R_j^{v^{(n)}} = \frac{v_j}{u_j + v_j} R_j^{(n-1)} \\ R^u &= \begin{pmatrix} \frac{e^a}{e^a - e^a + 1} 1 \\ \frac{e^b}{e^b - e^b + 1} 1 \end{pmatrix} = \begin{pmatrix} e^a \\ e^b \end{pmatrix}, \quad R^v = \begin{pmatrix} 1 - e^a \\ 1 - e^b \end{pmatrix} \end{aligned} \quad (4)$$

which causes numerical instability.

For part (ii), in the case of matrix multiplication between u and v , where $u \in \mathbb{R}^{k,m}$, $v \in \mathbb{R}^{m,l}$, we will show that:

$\sum_k \sum_m R_{k,m}^{u^{(n)}} = \sum_m \sum_l R_{m,l}^{u^{(n)}} = \sum_l \sum_k R_{k,l}^{(n-1)}$, which invalidates the conservation rule:

$$R_{k,m}^{u^{(n)}} = \sum_l u_{k,m} \frac{\partial(uv)_{k,l}}{\partial u_{k,m}} \frac{R_{k,l}^{(n-1)}}{\sum_{m'} u_{k,m'} v_{m'l}} = \sum_l \frac{u_{k,m} v_{m,l}}{\sum_{m'} u_{k,m'} v_{m'l}} R_{k,l}^{(n-1)} \quad (5)$$

$$R_{m,l}^{v^{(n)}} = \sum_k v_{m,l} \frac{\partial(uv)_{k,l}}{\partial v_{m,l}} \frac{R_{k,l}^{(n-1)}}{\sum_{m'} u_{k,m'} v_{m'l}} = \sum_k \frac{u_{k,m} v_{m,l}}{\sum_{m'} u_{k,m'} v_{m'l}} R_{k,l}^{(n-1)} \quad (6)$$

$$\begin{aligned} \sum_k \sum_m R_{k,m}^{u^{(n)}} + \sum_m \sum_l R_{m,l}^{v^{(n)}} &= \sum_k \sum_m \sum_l \frac{u_{k,m} v_{m,l}}{\sum_{m'} u_{k,m'} v_{m'l}} R_{k,l}^{(n-1)} + \sum_m \sum_l \sum_k \frac{u_{k,m} v_{m,l}}{\sum_{m'} u_{k,m'} v_{m'l}} R_{k,l}^{(n-1)} \\ &= \sum_k \sum_l \frac{\sum_m u_{k,m} v_{m,l}}{\sum_{m'} u_{k,m'} v_{m'l}} R_{k,l}^{(n-1)} + \sum_l \sum_k \frac{\sum_m u_{k,m} v_{m,l}}{\sum_{m'} u_{k,m'} v_{m'l}} R_{k,l}^{(n-1)} \\ &= 2 \sum_l \sum_k R_{k,l}^{(n-1)} \end{aligned} \quad (7)$$

□

To address the lack of conservation in the attention mechanism, which employs multiplication, and the numerical issues of the skip connections, our method applies a normalization to $R_j^{u^{(n)}}$ and $R_k^{v^{(n)}}$:

$$\begin{aligned} \bar{R}_j^{u^{(n)}} &= R_j^{u^{(n)}} \frac{\left| \sum_j R_j^{u^{(n)}} \right|}{\left| \sum_j R_j^{u^{(n)}} \right| + \left| \sum_k R_k^{v^{(n)}} \right|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_j R_j^{u^{(n)}}} \\ \bar{R}_k^{v^{(n)}} &= R_k^{v^{(n)}} \frac{\left| \sum_k R_k^{v^{(n)}} \right|}{\left| \sum_j R_j^{u^{(n)}} \right| + \left| \sum_k R_k^{v^{(n)}} \right|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_k R_k^{v^{(n)}}} \end{aligned} \quad (9)$$

Lemma 4. *The normalization technique upholds the following properties: (i) it maintains the conservation rule, i.e.: $\sum_j \bar{R}_j^{u^{(n)}} + \sum_k \bar{R}_k^{v^{(n)}} = \sum_i R_i^{(n-1)}$, (ii) it bounds the relevance sum of each tensor such that:*

$$0 \leq \sum_j \bar{R}_j^{u^{(n)}} + \sum_k \bar{R}_k^{v^{(n)}} \leq \sum_i R_i^{(n-1)} \quad (10)$$

Proof. For part (i), it holds that:

$$\sum_j \bar{R}_j^{u^{(n)}} + \sum_k \bar{R}_k^{v^{(n)}} \quad (11)$$

$$\begin{aligned} &= \sum_j R_j^{u^{(n)}} \frac{\left| \sum_j R_j^{u^{(n)}} \right|}{\left| \sum_j R_j^{u^{(n)}} \right| + \left| \sum_k R_k^{v^{(n)}} \right|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_j R_j^{u^{(n)}}} \\ &\quad + \sum_k R_k^{v^{(n)}} \frac{\left| \sum_k R_k^{v^{(n)}} \right|}{\left| \sum_j R_j^{u^{(n)}} \right| + \left| \sum_k R_k^{v^{(n)}} \right|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_k R_k^{v^{(n)}}} \end{aligned} \quad (12)$$

$$= \frac{\left| \sum_j R_j^{u^{(n)}} \right|}{\left| \sum_j R_j^{u^{(n)}} \right| + \left| \sum_k R_k^{v^{(n)}} \right|} \cdot \sum_i R_i^{(n-1)} + \frac{\left| \sum_k R_k^{v^{(n)}} \right|}{\left| \sum_j R_j^{u^{(n)}} \right| + \left| \sum_k R_k^{v^{(n)}} \right|} \cdot \sum_i R_i^{(n-1)} \quad (13)$$

$$= \frac{\left| \sum_j R_j^{u^{(n)}} \right| + \left| \sum_k R_k^{v^{(n)}} \right|}{\left| \sum_j R_j^{u^{(n)}} \right| + \left| \sum_k R_k^{v^{(n)}} \right|} \cdot \sum_i R_i^{(n-1)} = \sum_i R_i^{(n-1)} \quad (14)$$

For part (ii) it is trivial to see that we weigh each tensor according to its relative absolute-value contribution:

$$\sum_j \bar{R}_j^{u^{(n)}} = \sum_j R_j^{u^{(n)}} \frac{\left| \sum_j R_j^{u^{(n)}} \right|}{\left| \sum_j R_j^{u^{(n)}} \right| + \left| \sum_k R_k^{v^{(n)}} \right|} \cdot \frac{\sum_i R_i^{(n-1)}}{\sum_j R_j^{u^{(n)}}} \quad (15)$$

$$= \frac{\left| \sum_j R_j^{u^{(n)}} \right|}{\left| \sum_j R_j^{u^{(n)}} \right| + \left| \sum_k R_k^{v^{(n)}} \right|} \cdot \sum_i R_i^{(n-1)} \quad (16)$$

we see that:

$$0 \leq \frac{\left| \sum_j R_j^{u^{(n)}} \right|}{\left| \sum_j R_j^{u^{(n)}} \right| + \left| \sum_k R_k^{v^{(n)}} \right|} \leq 1 \quad (17)$$

therefore:

$$0 \leq \sum_j \bar{R}_j^{u^{(n)}}, \sum_k \bar{R}_k^{v^{(n)}} \leq \sum_i R_i^{(n-1)} \quad (18)$$

□

C. Visualizations - Multiple-class Images

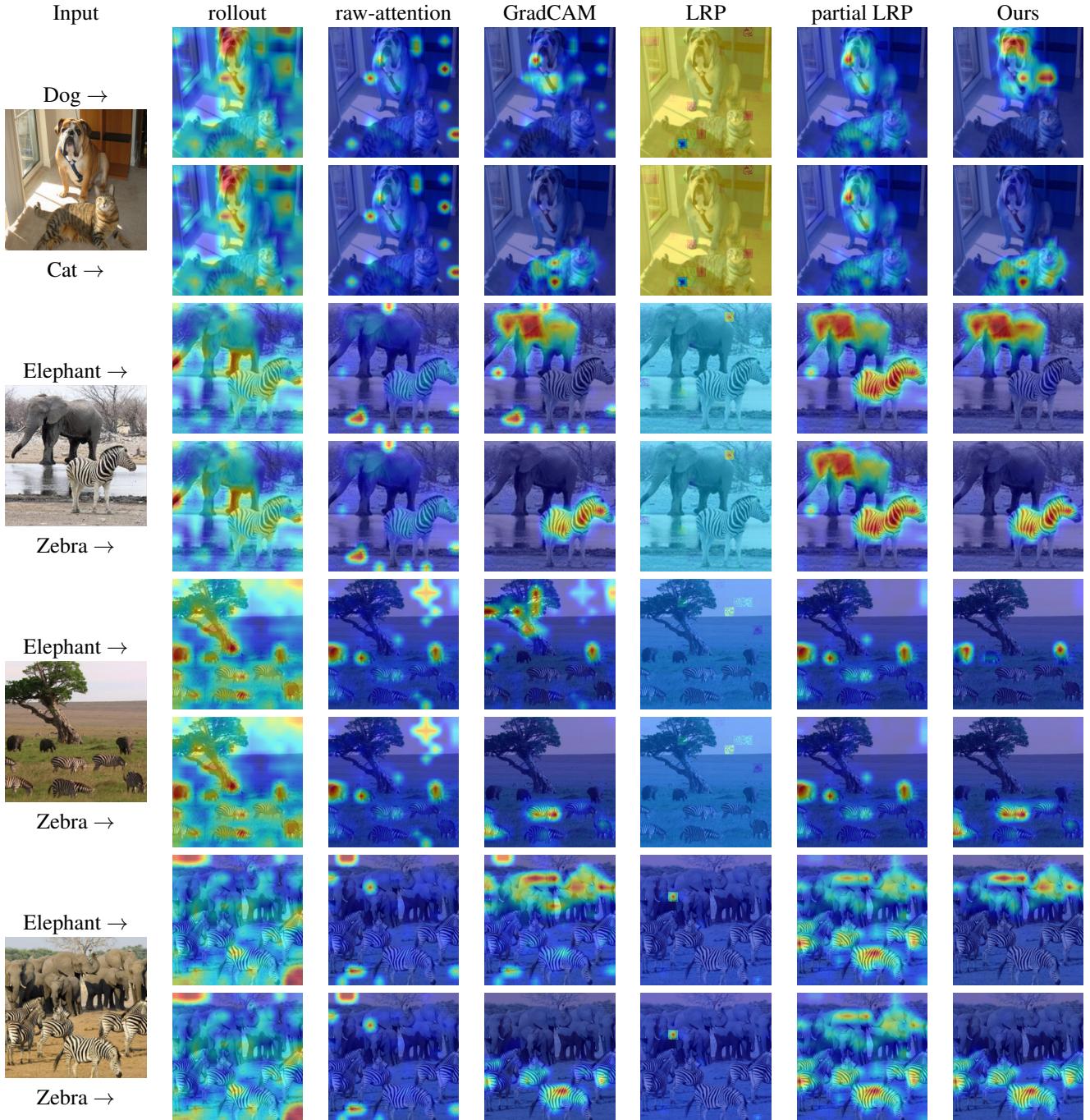


Figure 1: Multiple-class visualization. For each input image, we visualize two different classes. As can be seen, only our method and GradCAM produce class-specific visualizations, where our method has fewer artifacts, and captures the objects more completely.

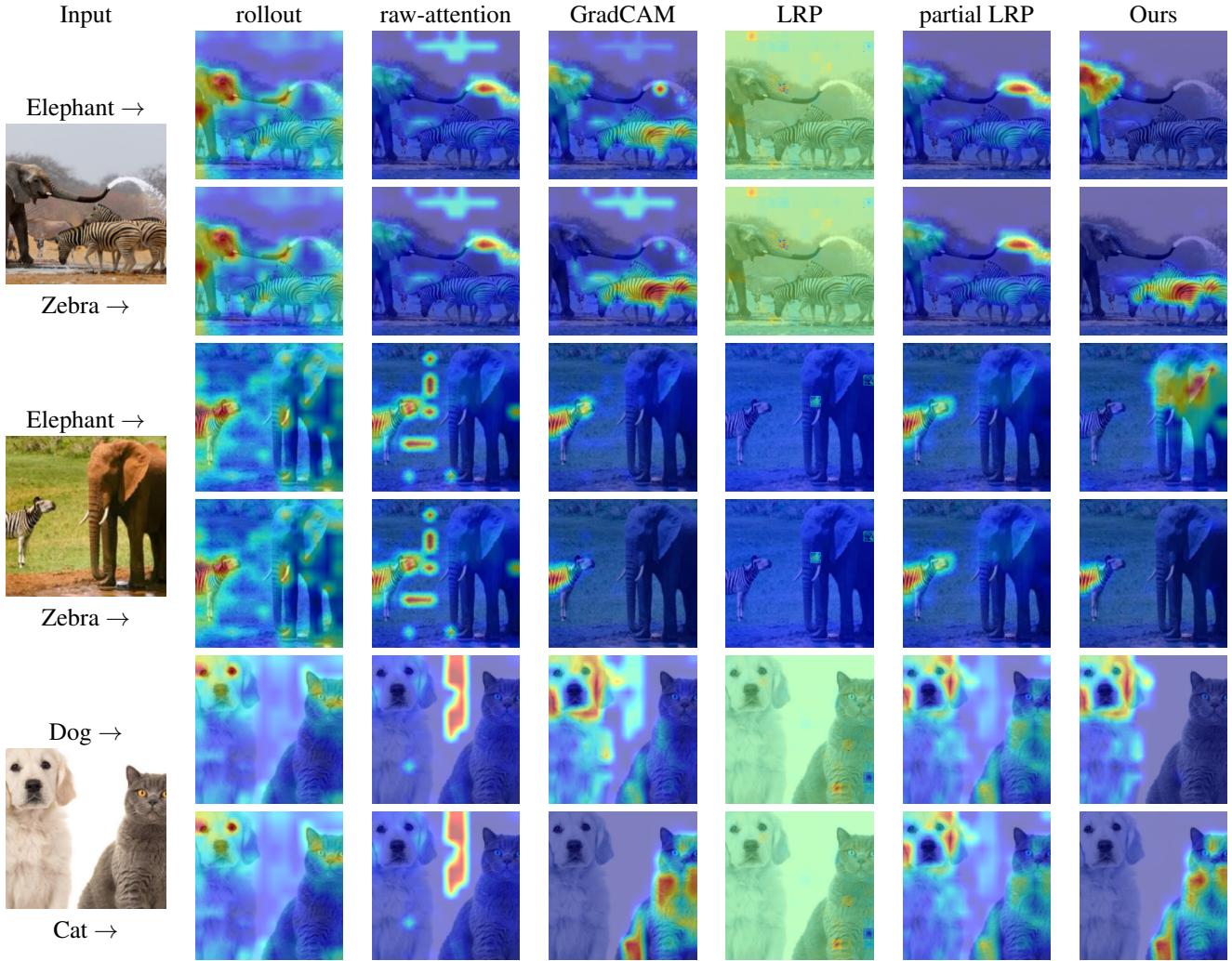


Figure 2: Multiple-class visualization. For each input image, we visualize two different classes. As can be seen, only our method and GradCAM produce class-specific visualizations, where our method has fewer artifacts, and captures the objects more completely.

D. Visualizations - Single-class Images

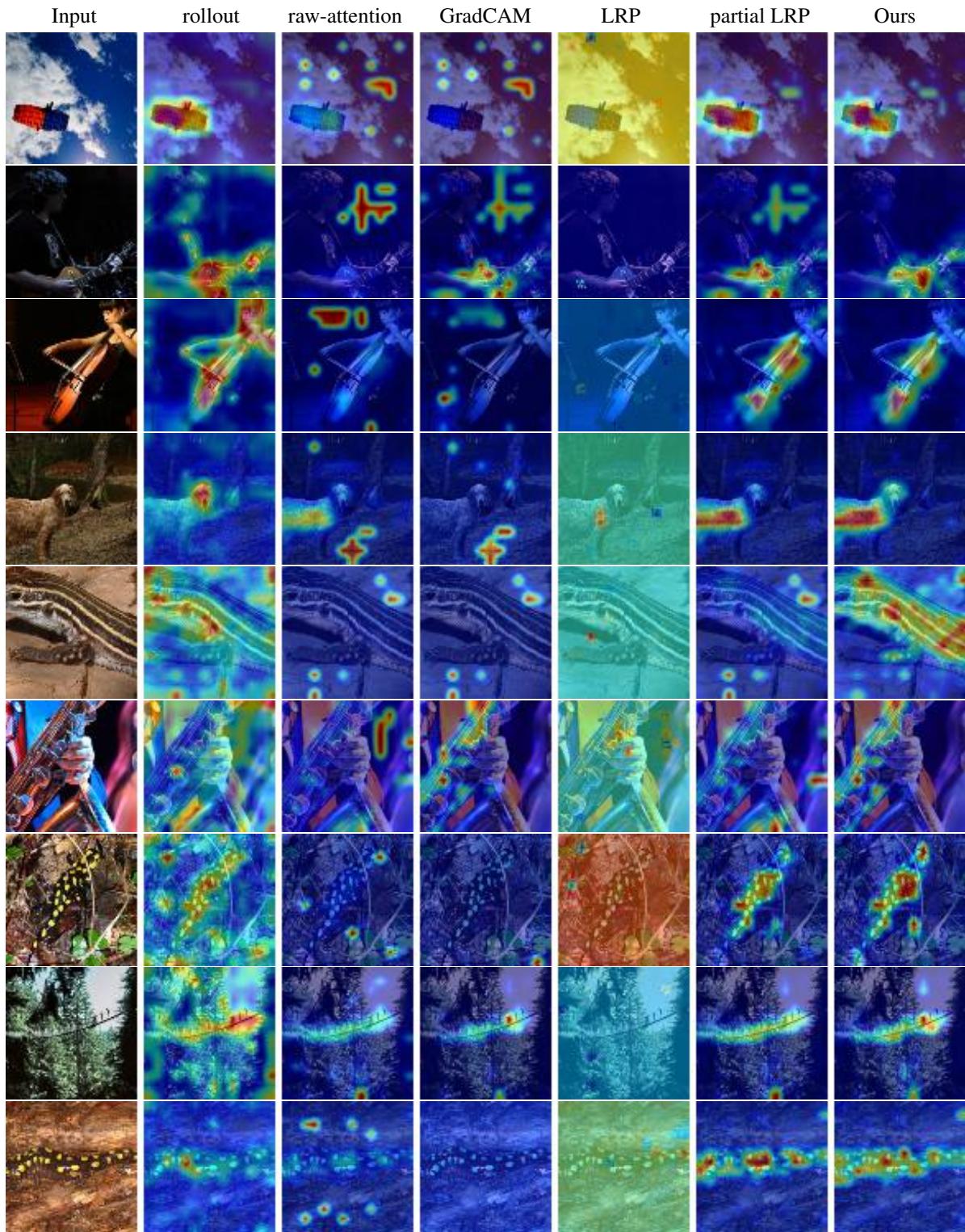


Figure 3: Sample images from ImageNet val-set.

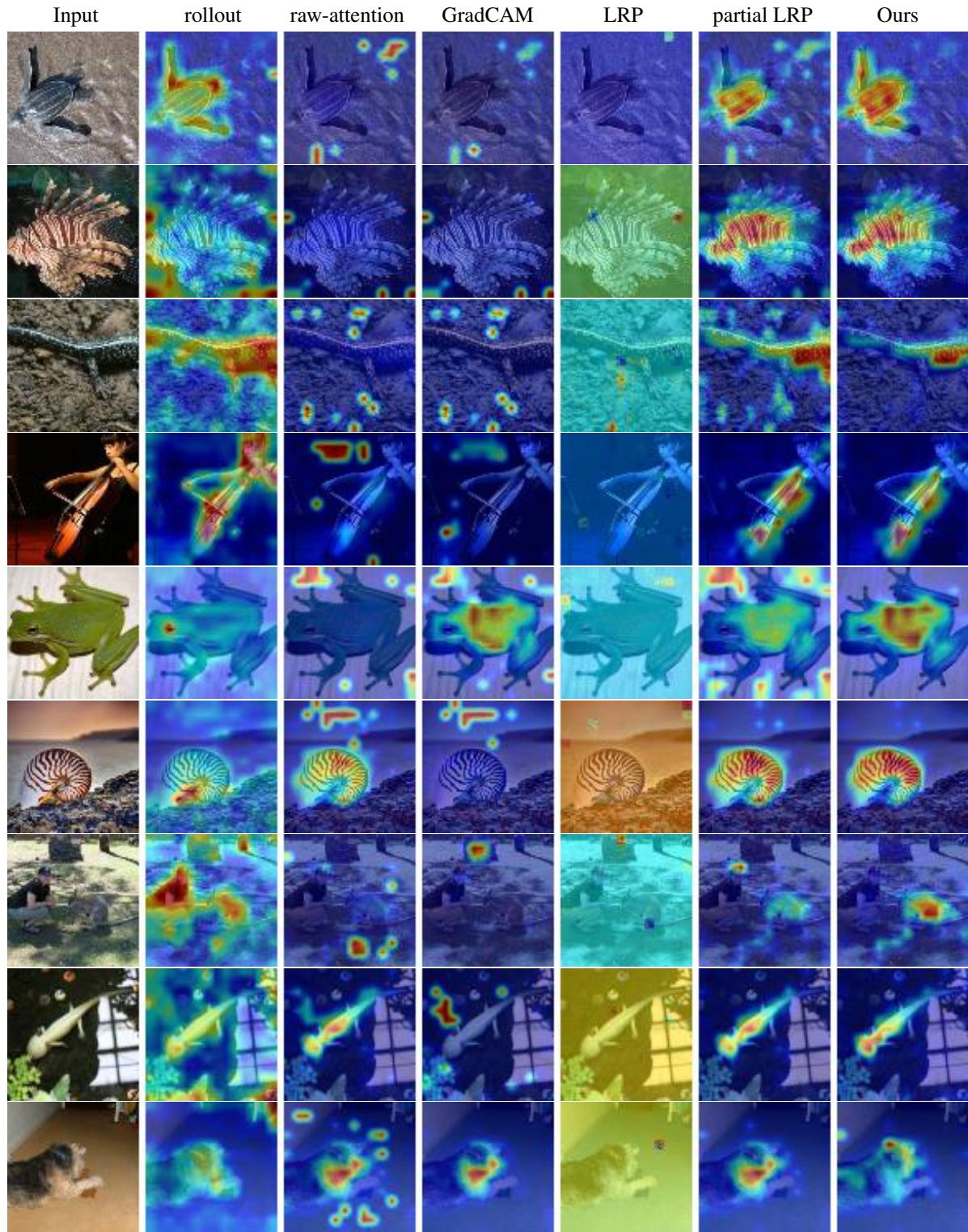


Figure 4: Sample images from ImageNet val-set.

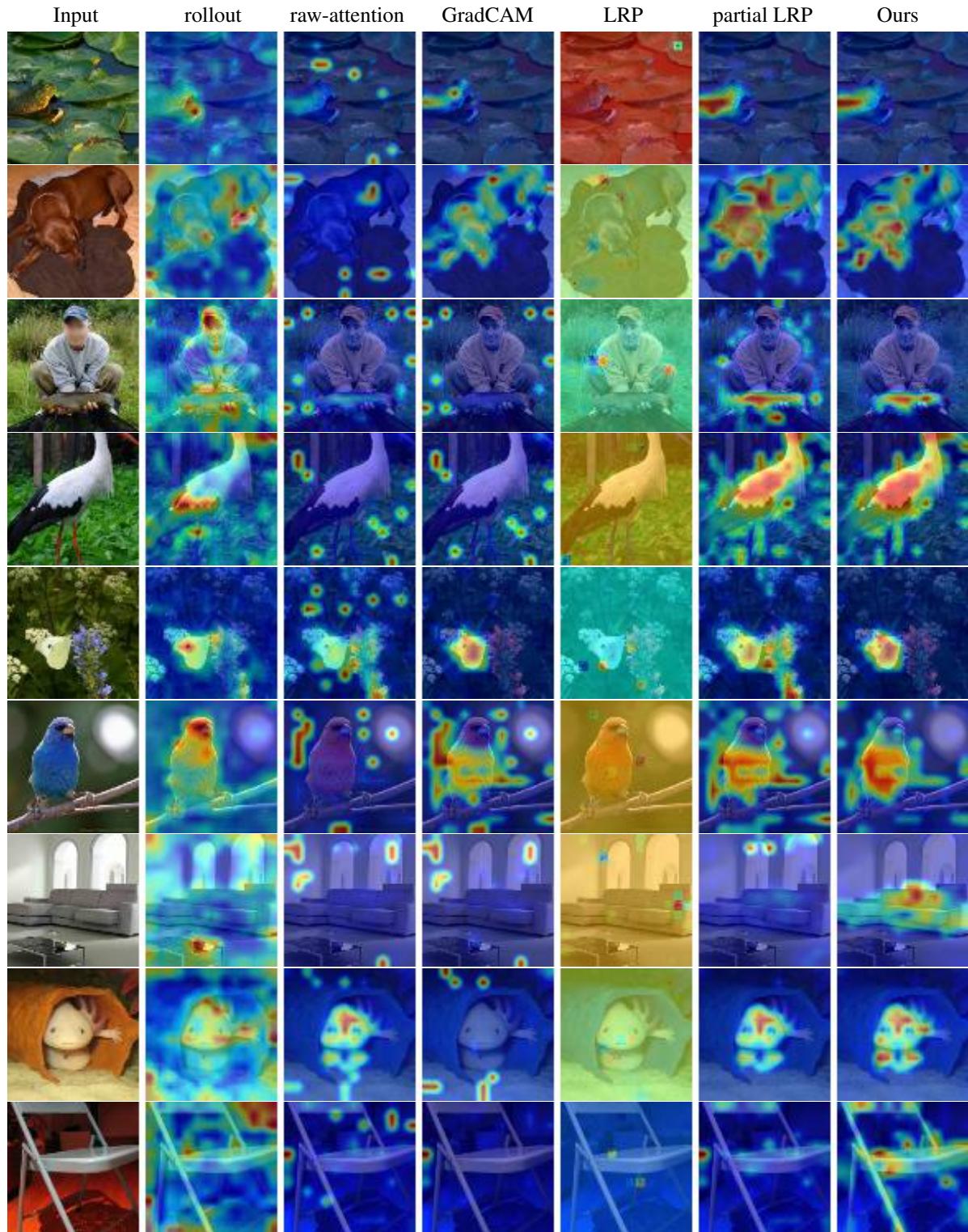


Figure 5: Sample images from ImageNet val-set.

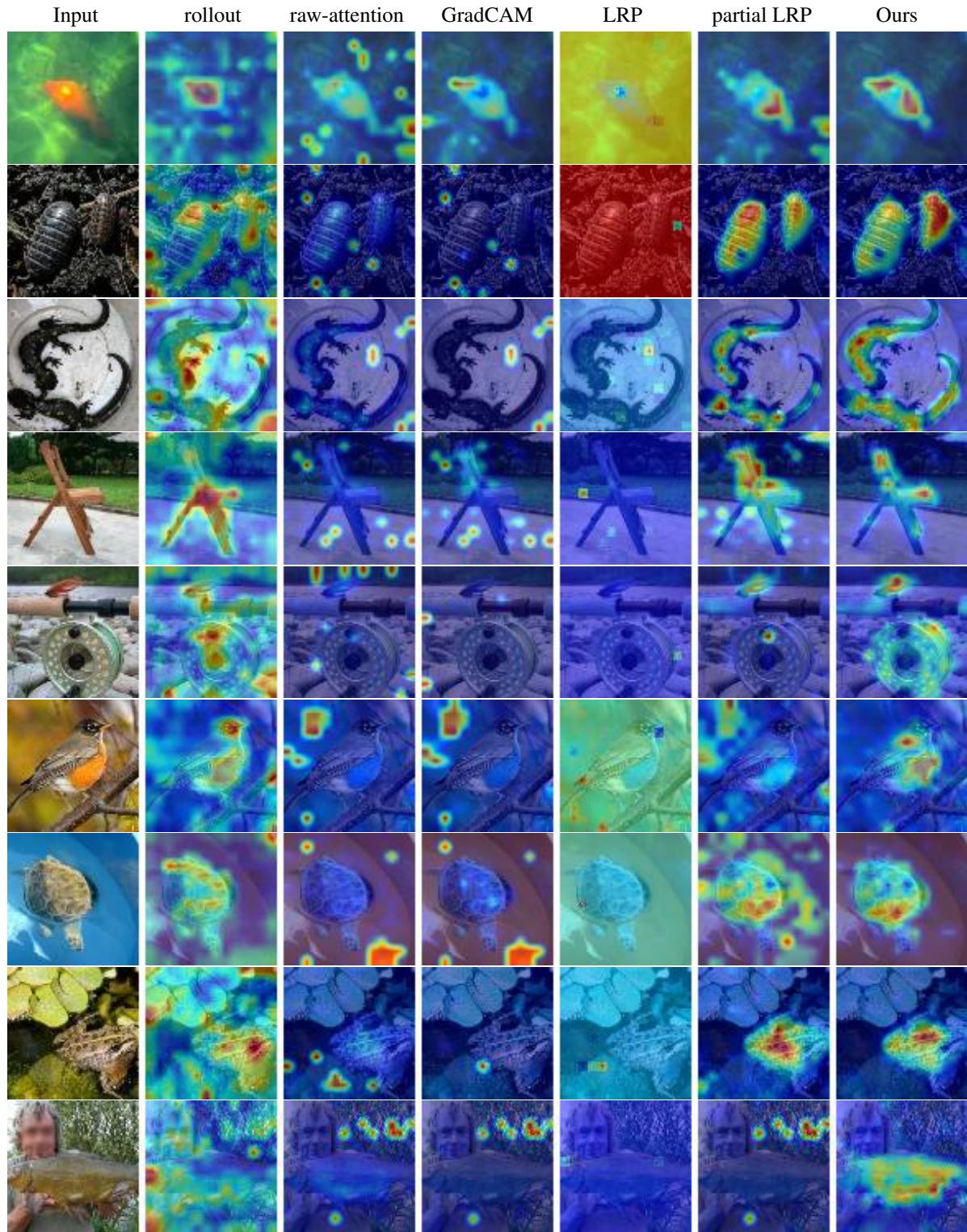


Figure 6: Sample images from ImageNet val-set.

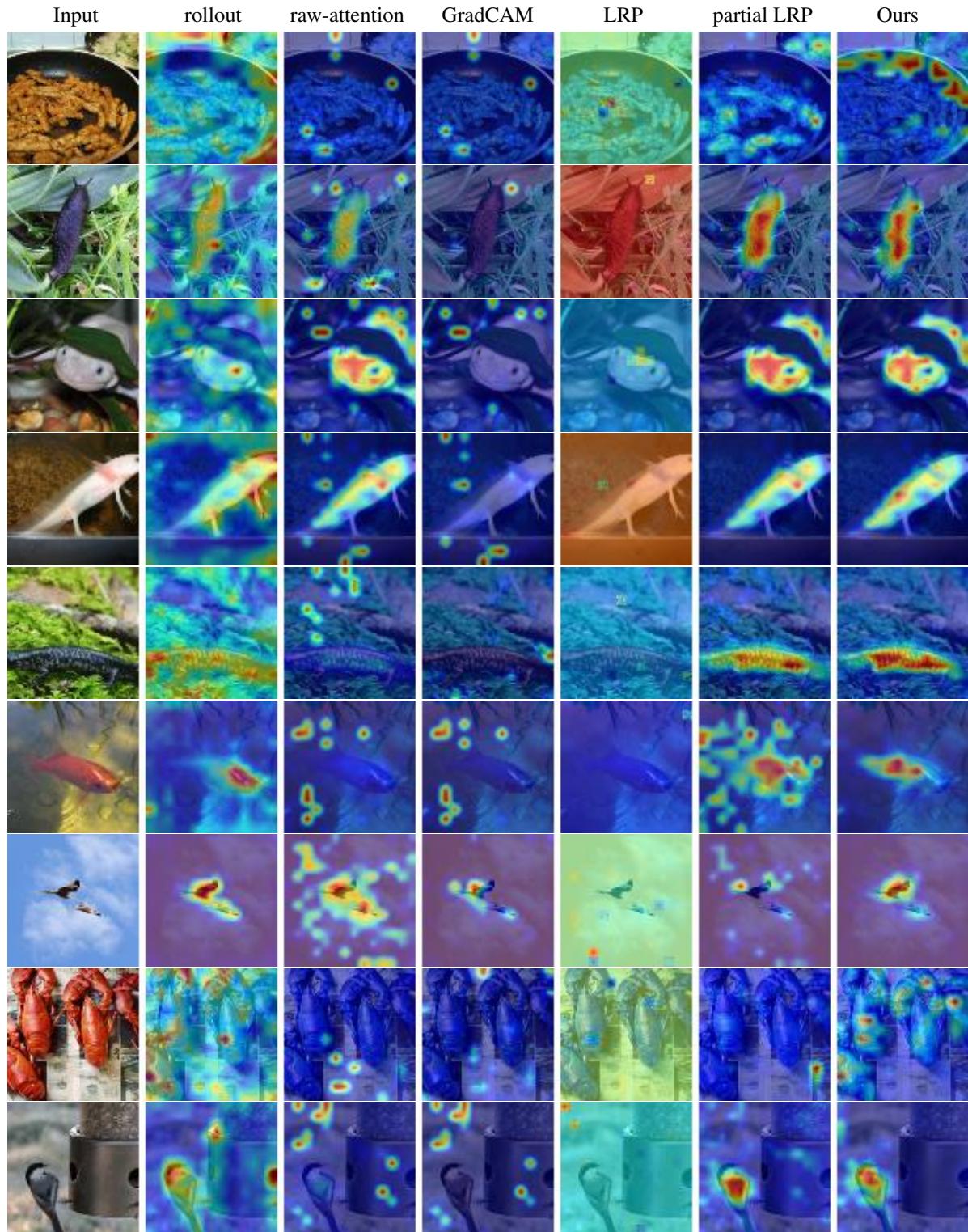


Figure 7: Sample images from ImageNet val-set.

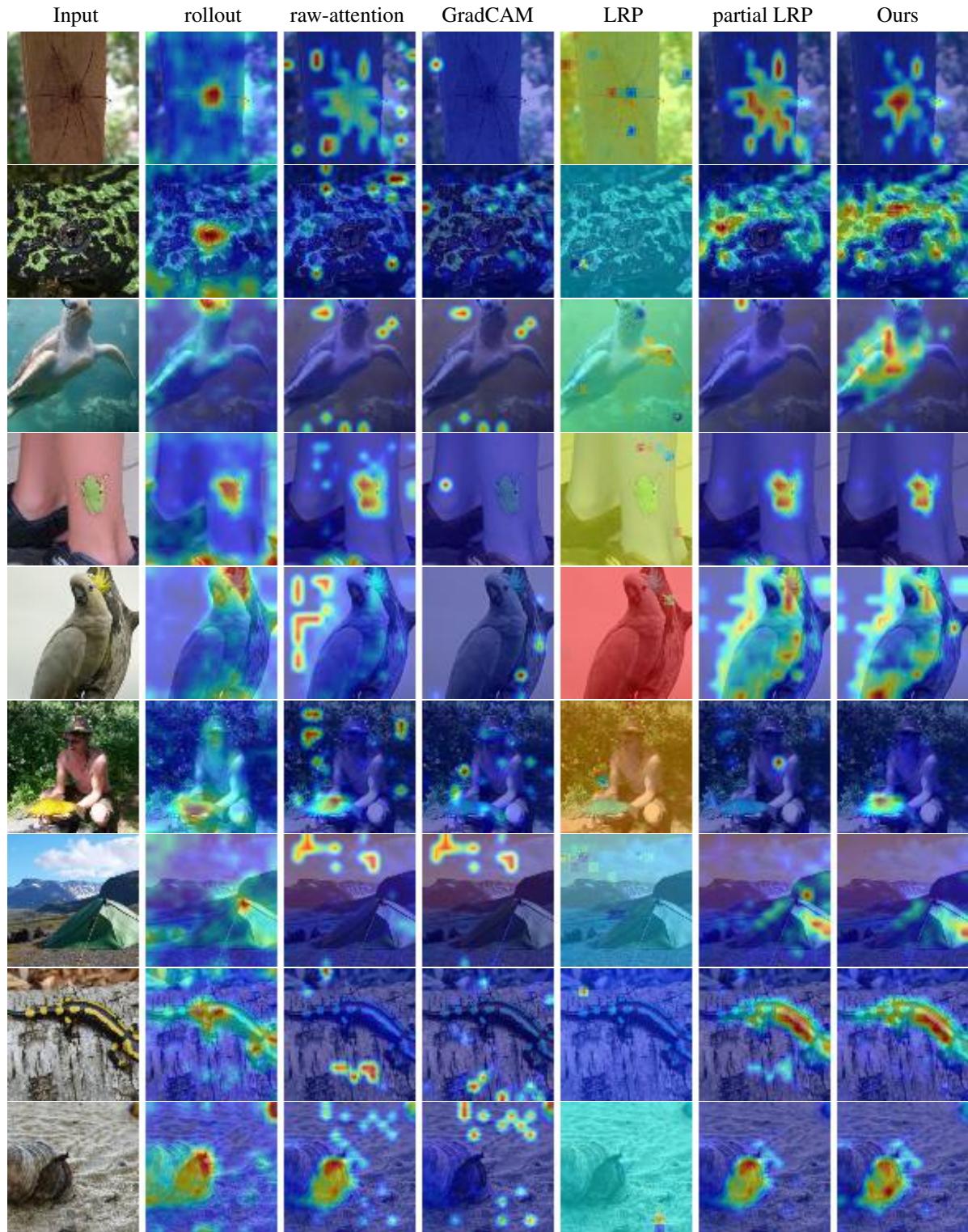


Figure 8: Sample images from ImageNet val-set.

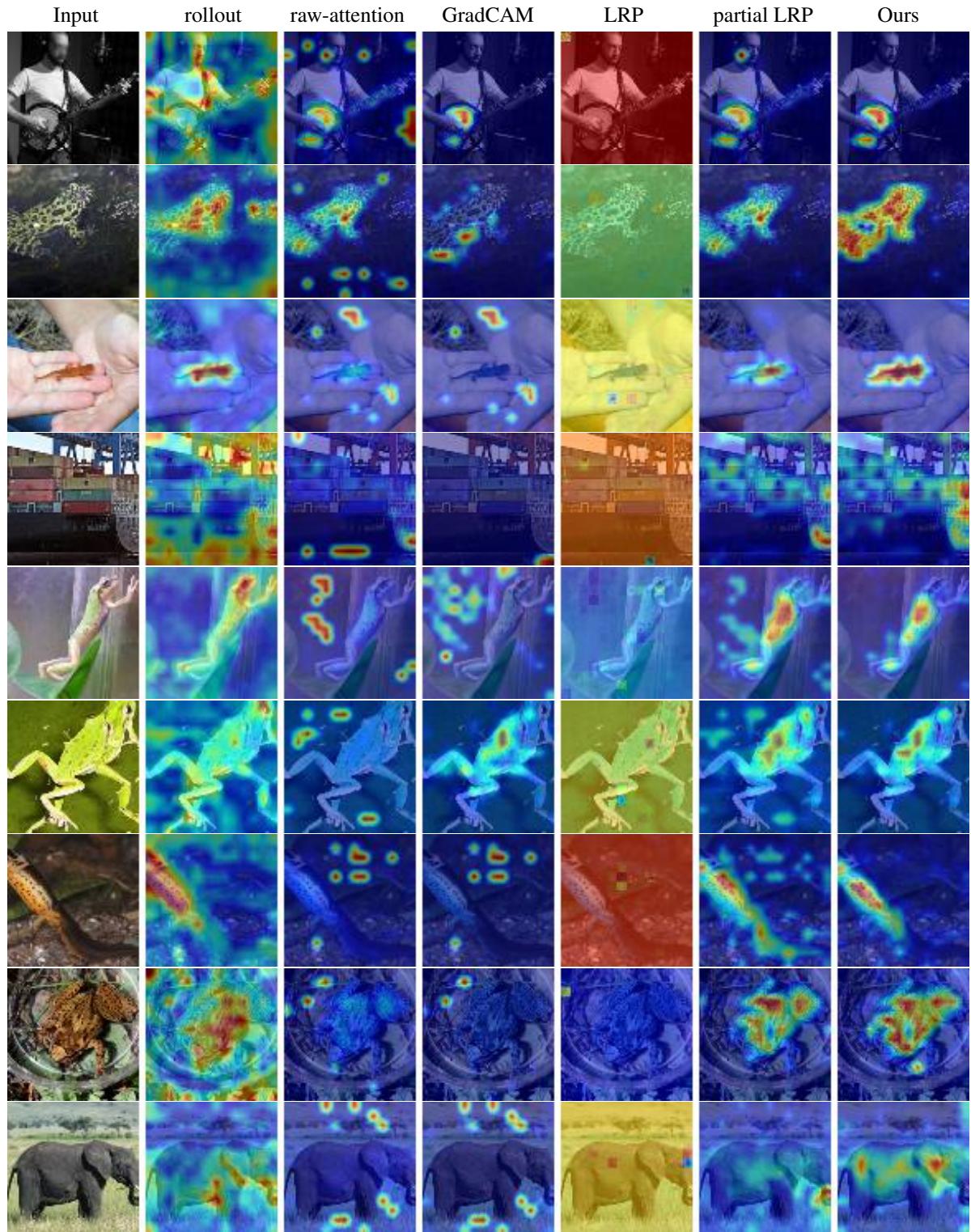


Figure 9: Sample images from ImageNet val-set.

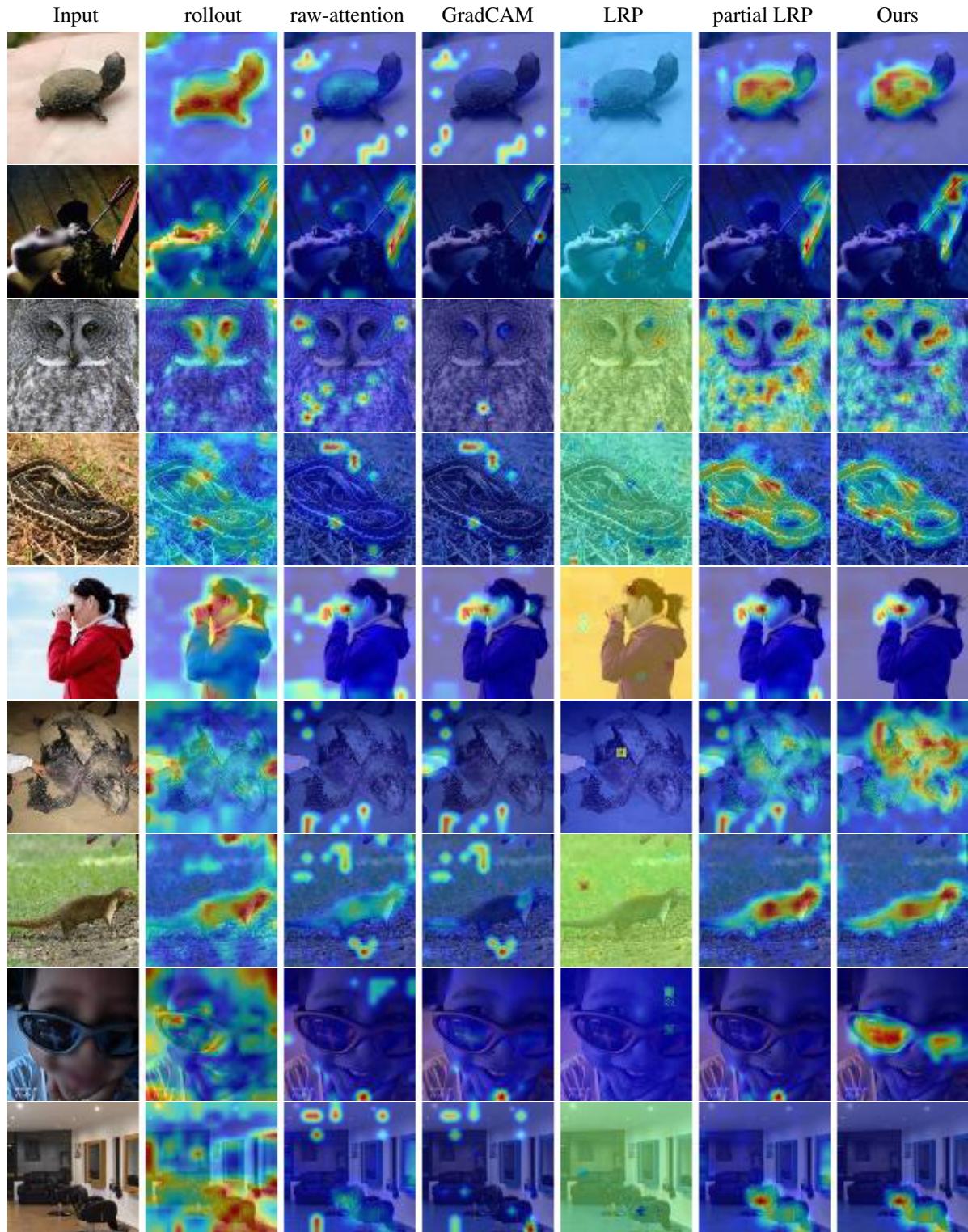


Figure 10: Sample images from ImageNet val-set.

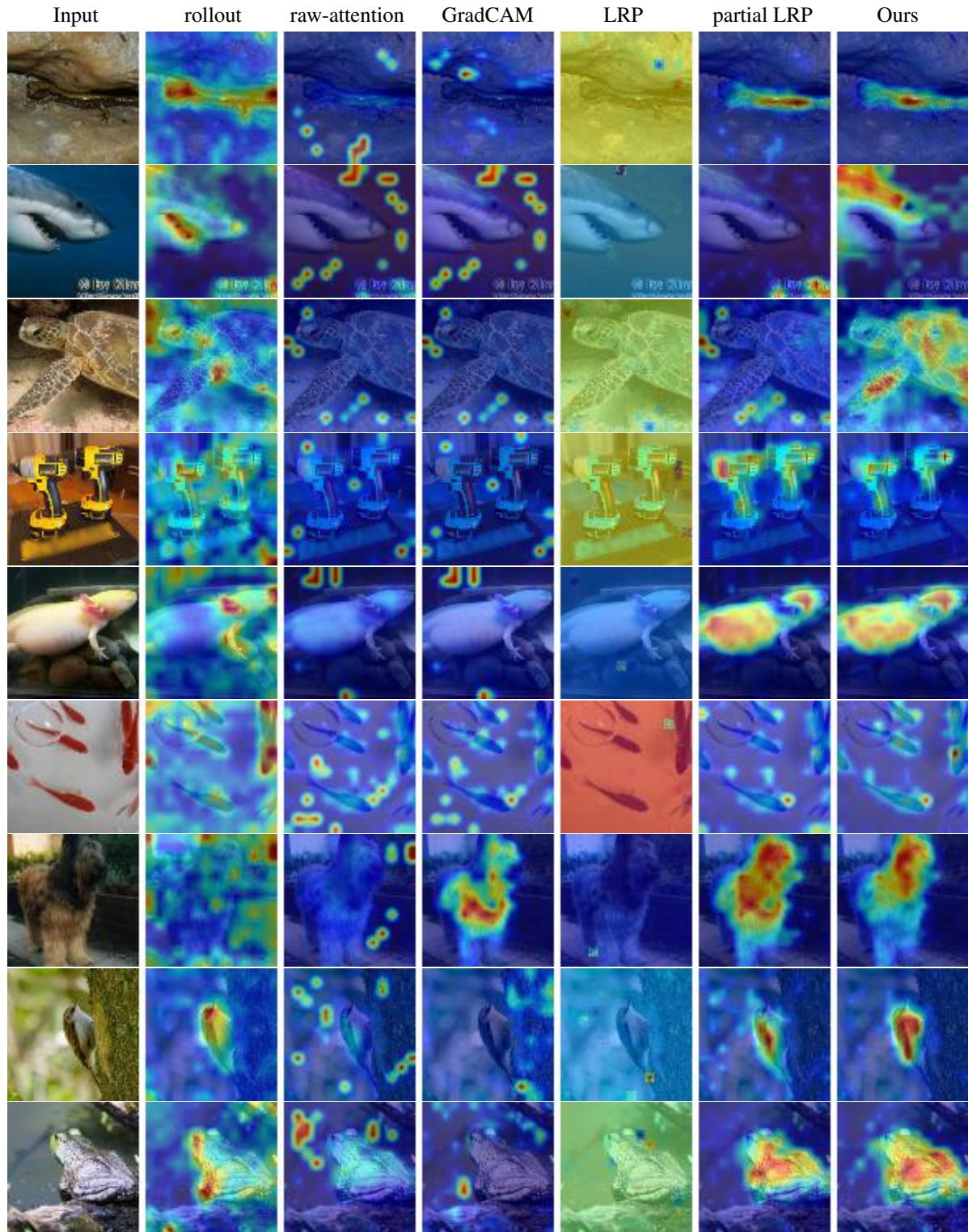


Figure 11: Sample images from ImageNet val-set.

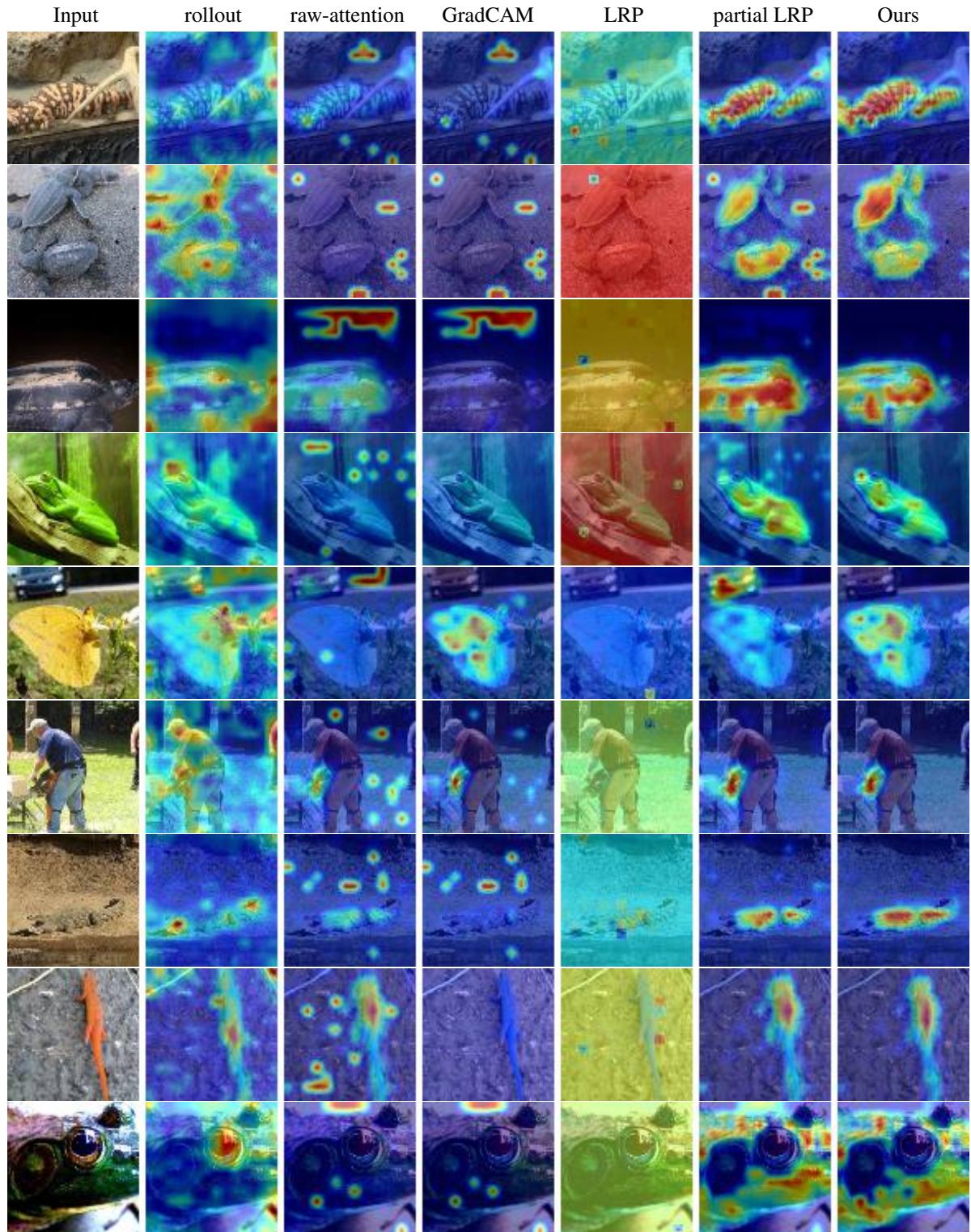


Figure 12: Sample images from ImageNet val-set.

E. Visualizations - Text

In the following visualizations, we use the TAHV heatmap generator for text (<https://github.com/jiesutd/Text-Attention-Heatmap-Visualization>) to present the relevancy scores for each method, as well as the excerpts marked by humans. For methods that are class-dependent, we present the attributions obtained both for the ground truth class and the counter-factual class.

Evidently, our method is the only one that is able to present support for both sides, see panels (b,c) of each image. GradCAM often suffers from highlighting the evidence in the opposite direction (sign reversal), e.g., Fig. 13(g), in which the counter-factual explanation of GradCAM supports the negative, ground truth, sentiment and not the positive one.

Partial LRP (panels d,e) is not class-specific in practice. This provides it with an advantage in the quantitative experiments: Partial LRP highlights words with both positive and negative connotations from the same sentence, which better matches the behavior of the human annotators who are asked to mark complete sentences.

Notice that in most visualizations, it seems that the rollout method focuses mostly on the separation token [SEP], and fails to generate meaningful visualizations. This corresponds to the results presented in the quantitative experiments.

It seems from our results, e.g., Fig. 13(b,c) that the BERT tokenizer leads to unintuitive results. For example, “joyless” is broken down into “joy” and “less”, each supporting different sides of the decision.

[CLS] there may not be a critic alive who harbors as much affection for shock montages as i do . i delighted in the snappy - smart entertainment of ron underwood 's big - underground - worn yarn tremors ; i even giggled at last year 's critically savaged big - underwater - snake yarn anaconda , something about those films causes me to lower my inhibitions and return to the saturday afternoons of my youth , spent in the company of ghidrah , the creature from the black lagoon and the blob , deep rising , a big - underscored serpent yarn . **does** **it** **quite** **pass** **the** **test** ? sure enough , all the modern monster movies ingredients are in place : a conspicuously multi - ethnic / multi - national collection of bad guys , excuse me , characters ; an isolated location , here a derelict cruise ship in the middle of nowhere ; a cast of mostly unconvincing actors , here a bunch of tourists in a big explosion , here too many cheap , to - the - accidentals elements , like a shiny space invader (anthony head) who also happens to have a doctorate in marine biology , a shifty international jewel thief (flem jansen) whose white cotton tank top hides a heart of gold , as it happens , deep rising is noteworthy primarily for the mechanical manner in which it spits out all those ingredients , a terrorist crew , led by squinty - eyed mercenary hanover (wes studi) and piloted by squinty - eyed boat captain finegan (trent williams) , shows up to loot the cruise ship ; the sea monsters show up to eat the mercenary crew ; a few survivors make it to the credits , and up go the lights . **it** **'s** **not** **so** **bad** **as** **you** **think** to work up much enthusiasm for this sort of joyless film - making , especially when a monster movie should make you laugh every time it makes you scream . **here** **the** **laughs** **are** **provided** **almost** **entirely** **by** **kevin** **j.** **o'** **connor** , generally amusing as the crew 's fraily - cat mechanic , writer / director stephen sommers seems most concerned with creating a tone of action - horror menace - something over - populated with gore , drenched skeletons , something where the gunplay and special effects are taken a bit too seriously , deep rising is missing that one unmistakable cut that we 're expected to have a ridiculous good time , not hide our eyes , case it point , comparing deep rising to its recent cousin anaconda , in deep [SEP]

[CLS] there may not be a critic alive who harbors as much affection for shocker monster movies as I do. I delighted in the sneaky - smart entertainment of ron underwood 's big - underground - worn yarn tremors ; I even giggled at last year 's critically - savaged big - underwater - snake yarn anaconda . something about these films causes me to lower my inhibitions and return to the saturday afternoons of my youth , spent in the company of ghirah , the creature from the black lagoon and the blob . deep rising , a big - undersea - serpent yarn , does in place : I conspicuously multi - ethical / multi - national collection of bad guys , a bunch of international scumbags , led by a deranged , balding , middle-aged chinaman a sea - son comic relief : a few egot - enhanced gung-ho , and at least one big explosion , there are lots - too . accidentally elements , like a shaggy sloping magnate (anthony head) who also happens to have a doctorate in marine biology , or a slinky international jewel thief (fanuke janssen) whose white cotton tank top hides a heart of gold , as it happens , deep rising is noteworthy primarily for the mechanical manner in which it spits out all those possibilities , a terrorist crew , led by squatly - eyed mercenary hanover (wes studi) and piloted by squatly - eyed boat captain finnegant (treat williams) , shows up to loot the cruise ship (the sea monsters show up to eat the mercenary crew) a few survivors make it to the closing credits , and up go the lights , it 's hard to work up much enthusiasm for this sort of less than ~~less~~ ~~more~~ ~~nothing~~ , especially when a monster movie should make you laugh every time it makes you scream . here , the laughs are provided almost entirely by kenn j . o 'connor , come to think of it , missing as the crew 's fratty - cat mechanic , writer / director stephen sommers seems most concerned with creating a load of action - horror menace - something over - populated with gore - drenched skeletons , something where the gunfire and special effects are taken a bit too seriously . deep rising is missing that one unmistakable cut that we 're expected to have a ridiculous good time , not hide our eyes . case in point , comparing deep rising to its recent cousin anaconda . in deep [SEP]



Figure 13: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention. (k) rollout

"[C] remember seeing stars as sonia , a young jewish girl and her friend, distraught by the
constrictions of their religious upbringing, had sex with a man [the friend] . . . the religious scholar who was all - in a - day 's work attitude on sex fails to tame the fire ."
she feels within , as she confesses to the rabbi (after hearing her fiery confession)
the rebbe suddenly gets frisky with his passionately surprised wife - - and dies the next morning . . . sensing her frustration , her husband 's brother (christopher eccllesiastes) gives her a job in his jewelry brokering business in exchange for raw , passionate sex the just , a cool blast of hunky puerto rican water who does his own jewelry designs when not working at a grueling jewelry store can fire - taming be far that fear behind
for the ever - smoldering sonia ? just about everything in writer - director boaz yakin 's engrossing , engrossing , engrossing drama is about sex . . . the action , the acting , the acting , the acting job , simply looks too wacky for the sake of a little heat would have been phantasmagorical , who outshines zohwiger as sonia 's take - no - crap sister in - law , sonia 's baby steps toward liberation , such as indulging in a non - kosher egg roll chintzatown , come off as ~~sub~~ yakin attempts to spice up the proceedings with a touch magical realism - - in the form of the recurring presence of sonia 's long - dead brother 's ghost - make [the] story feel even more trite if it already is . . . i did n 't know what to expect , it 's like something you chase for so long , but then you do n 't know how to react when you get it . . . i still do n 't know how to react . . ." michael jordan on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997 [SEP]

[CLS] remains zipped for **raw** as sonia , a young jeweler and another friend turned by religious scholars while all - in - a - day - work attitude on sex leads to the tame " fire " she feels within as so she confesses to the rebel (after hearing her fiery confession the rebel suddenly gets frisky with his pleasantly surprised wife - and dies the next morning) , sensing his frustration , his husband ' s brother (christopher ecleston) gives her a job in his jewelry brokering business in exchange for **raw** , passionless sex that just fans coal ' s still - burning flame . on the job , sonia befriends ramon (allen page) , a cool bantustan hunky puerto rican water who does his own jewelery designs when not working as a grunt in an upscale jewelry store . can - tine - tam - be far be that far behind sonia ' s sex scene ? just like the even more explicit scenes in paul verhoeven ' s *sex and violence* , sonia has the same kind of self-ignition that does an adequate job of acting job but simply looks too wimpy for the role , a better fit would have been jihanna margulies , who outshines schlesinger as sonia ' s take - no - crap sister - in - law , some of sonia ' s baby steps toward liberation , such as indulging in a non - kosher egg roll in chinatown , come off as silly , yakim attempts to spice up the proceedings with a touch of magical realism - in the form of the recurring presence of sonia ' s long - dead brother ' s ghost - makes the story feel even more trite than it already is . i did n't know what to expect . it ' s like something you chase for so long , but then you don ' t know how to react when you get it . i still do n't know how to react . " -- michael jordan , on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997 [SEP]



[CLNS] renes zellweger stars as sonia , a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn . her husband (gerald fitzgerald) is a religious scholar whose all - in - a - day 's work attitude on sex fails to tame the " fire " she feels within , as she confesses to the rebe (after hearing her fiery confessions) , the rebe suddenly gets frisky with his pleasantly surprised wife - - and dies the next morning . sonia , her frustration , her husband 's surprise (christopher eccleston) gives her a job in a likely looking brooklyn bakery in exchange for her services ; see that just family sonia 's kindly passing the job , sonia befriends a fellow baker (alfred molina) and takes a long, steamy shower with him , in their newly designed wheelchair ; when not walking as a grunt in an upscale jeweler store , can fire - taming be far that far behind for the ever - smoldering sonia ? first about something in writing - director boaz yakin 's rags false , starting with the improbably cast zellweger , who does an adequate enough acting job but simply looks too wacky for the role , a better fit would have been julianne margulies , who outshines zellweger as sonia 's take - no - crap sister ; in law , some sonia 's baby steps toward liberation , such as indulging in a non - kosher egg roll in chinatown , come off as silly ; yakin attempts to spice up the proceedings with a touch of magical realism - - in the form of the recurring presence of sonia 's long - dead brother , son 's ghost -- make [REDACTED] story feel even more like it already is . i did n't know what to expect , but i 'd like something you chase for so long , but then you do n't know how to react when you get it , i still do n't know how to react . " - michael jordan on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997 [SEP]

[CLS] reenforce stars as sonia, a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn, her husband (glenn Fitzgerald) is a religious scholar whose all-in-a-day's-work attitude on sex fails to tame the "fire" she feels within, as she confesses to the rabbi (after hearing her fiery confessions), the rabbi suddenly gets frisky with his pleasantly surprised wife . . . and die the next morning . . . sensing her frustration, her husband's brother (christopher eccleston) gives her a job in his jewelry broker business in exchange for raw, passionless sex that just fuels sonia's still-burning flame . . . on the job, sonia befriends ramon (allen page) a good-looking but unlikely suitor who does his own creative designs while working as a grum in a popular jewelry store . . . sonia's first meeting with ramon behind closed doors ends with her . . . and the rest is history . . . sonia's life is behind her for ever - smoldering sonia? just about everything in writer-director boaz yakin's rings fire, starting with the improbable cast zellweger, who does an adequate enough acting job but simply looks too wacky for the role, a better fit would have been julianne margulies, who outshines zellweger as sonia's take-no-crap sister - in law - egg roll, sonia's baby steps toward liberation, such as indulging in a non-kosher egg roll at chinatown, come off as silly yakin attempts to spice up the proceedings with a touch of magical realism - in the form of the recurring presence of sonia's long, dead brother . . . his ghost - make [sic] stops feel even more fire than if already there . . . i did n't know what to expect . . . it 's like something you chase for so long, but then you do n't know how to react when you get it . . . i still do n't know how to react . . . michael jordan on winning his first nba championship in 1991 . . . or, my thoughts after meeting him on november 21, 1997 [SEP]

[CLS] renounces zellweger still **sона**, a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn, her husband (glenn Fitzgerald) is a religious scholar whose all-in-a-day's work attitude on sex fails to tame the fire "she feels" with him... as she confesses to the rebbetzin (after hearing her fiery confession the rebbetzin suddenly gets frisky with his pleasantly surprised wife - and dies the next morning)... sensing her frustration, her husband's brother (christopher eccleston) gives her a job in his jewelry brokering business in exchange for **sex** [passionate sex that you can't stop] still - burning flame, on the job, sonia befriends ramon (allen payne) a cold blast of kinky sex who does his own original designs with what amounts to an upscale jewelry store... sonia, still about everything in person - director boaz yakin's rings false, starting with the improbably cast zellweger, who does an adequate enough acting job but simply looks too wacky for the role, a better fit would have been julianna margulies, who outshines zellweger as sonia's take-no-nonsense sister - in law, some of sonia's baby steps toward liberation, such as indulging in a non-kosher egg roll in chinatown, come off as silly, yakkin attempts to spin up the proceedings with a touch of magical realism - in the form of the recurring presence of sonia's long-dead brother ghost - make the story feel even more trite than it already is. "i didn't know what to expect... it's like something you chase for so long, but then you don't know how to react when you get it. i still don't know how to react." - michael jordan, on winning his first nba championship in 1991... or, my thoughts after meeting him on november 21, 1997 [SEP]



[CLS] renee zellweger stars as sonia, a young jewish wife and mother fitted by the constraints of her hasidic community in brooklyn . her husband (glenn Fitzgerald) is a religious scholar who's all in - a day 's work attitude on sex fails to tame the " fire " she feels within , as she confesses to the rebbe (after hearing her fiery confession) . the rebbe suddenly gets frisky with his pleasantly surprised wife . . . and dies the next morning . . . sensing her frustration , her husband ' s brother (christopher ecclstone) gives her a job in his jewelry brokering business in exchange for raw , passionless sex sets that just fans sonia ' s still - burning flame ; on the job , sonia befriends ramon (allen payne) , a cool blast of hunky puerto rican water who does his own jewelry designs when not working as a grunt in an upscale jewelry store . can fire - taming be far that he will be for the ever - smoldering sonia ? just about everything in writer - director boaz yakin ' s rags false , starting with the improbable cast zellweger , who does an adequate enough acting job but simply looks too wacky for the role ; a better fit would have been julianne margulies , who outshines zellweger as sonia ' s take - no - crap sister - in - law ; some of sonia ' s baby steps toward liberation , such as indulging in a non - kosher egg roll in chinatown , come off as silly ; yakin attempts to spice up the proceedings with a touch of magical realism -- in the form of the recurring presence of sonia ' s long - dead brother ' s ghost -- make the story feel even more fake than it already is . [i didn ' t know what to expect . it ' s like something you chase for so long , but then you don ' t know how to react . if it ' s good , i still don ' t know how to react .] -- michaeld rosen on winning his first nyc shampanip in 1991 . . . or , my thoughts about meeting him on november 21 , 1997 [SEP]

[CLS] renee zellweger stars as sonia , a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn . her husband (gabe Fitzgerald) is a religious scholar whose all - in - a - day ' s work attitude on sex fails to tame the " fire " she feels within , as she confesses to the rabbi (after hearing her fiery confession), the rabbi suddenly gets frisky with his pleasantly surprised wife - and dies the next morning . sensing her frustration , her husband ' s brother (christopher eccleston) gives her a job in his jewelry brokering business in exchange for raw , passionless sex that just fans sonia ' s still burning flame . on the job , sonia befriends ramon (allen payman) , a cool blast of huffy puerto rican water who does his jewelry designs when not working as a grunt in an upscale jewelry store , can fire - taming be far be that far behind for the ever - smoldering sonia ? just about everything in writer - director boaz yakin rings false , starting with the improbably cast zellweger , who does an adequate enough acting job but simply looks too waxy for the part ; a better fit would have been julianne margulies , who outshines zellweger as sonia ' s take - no - crap sister in *law & order* . sonia ' s baby steps toward liberation , such as indulging in a non - kosher egg roll chinatown , come off as silly , yakin attempts to spice up the proceedings with a touch magical realism - in the form of the recurring presence of sonia ' s long - dead brother ' s ghost -- make the story feel even more trite than it already is ! i did n ' t know what to expect , it ' s like something you chance for so long , but then you do n ' t know how to react when you get it . i still do n ' t know how to react . . . -- michelle jordan on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997 [SEP]

[CLS] renée zellweger stars as sonia , a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn . her husband (glenn fitzgerald) is a religious scholar who all - in - a - day ' s - work attitude on sex fails to tame the " fire " she feels within , as so she confesses to the rebbi (after hearing her fiery confession , the rebbe suddenly gets frisky with his pleasantly surprised wife - - and dies the next morning) | sensing her frustration , her husband ' s brother (christopher ecleston) gives her a job in his jewelry brokering business in exchange for raw , passionate sex that just fans sonia ' s still - burning flame - on the job , sonia befriends ramon (allen payne) , a cool blast of hunky puerto rican water who does his own jewelery designs when not working as a grunt in an upscale jewelry store . can fire - taming be far be that far behind for the ever - smoldering sonia ? just about everything in writer - director boaz yakin ' s rings false , starting with the improbably cast zellweger , who does an adequate enough acting job but simply looks too wavy for the role ; a better fit would be juliana margulies , who outshines zellweger as sonia ' s take - no - crap sister in *i law* | some of sonia ' s baby steps toward liberation , such as indulging in a non - kosher egg roll in chinatown , come off as silly , akin attempts to spin up the proceedings with a touch of magical realism -- even the form of the recurring presence of sonia ' s long - dead brother v ' s ghost - make the story feel even more trite than it already is | " i did n ' t know what to expect ; it ' s like something you chase for so long , but then you don ' t know how to react when you get it : i still do n ' t know how to react " -- michael jordan , on winning his first nba championship in 1991 | or , my thoughts after meeting him on november 21 , 1997 [SEP]



[CLS] renee zellweger stars as sonia , a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn ; her husband (glen ferriday) is a religious scholar whose all - in - a day ' s way attitude on sex fails to tame the " fire " she feels within , as she confesses to the rebbe (after hearing her fiery confessions the rebbe suddenly gets frisky with his pleasantly surprised wife) - and does the next morning , too . sonia ' s husband is busy brokering business in exchange for pious promises to see that his fans sonia ' s still - hot brawny flamingo on the job , sonia befriends ramon (allen page) , a cool blast of hunky puerto rican water who does his own jewelry designs when not working as a grunt in an upscale jewelry store ; can fire - taming be far than that for behind the ever - smoldering sonia ? just about everything in writer / director boaz yakin ' s film rings false , starting with the improbably cast zellweger , who does an adequate enough action job but simply looks too wacky for words to be a better fit ; would have been jessica mariegas , who outshines zellweger as sonia ' s take - no - crap sister - in - law ; some of sonia ' s baby steps toward liberation , such as indulging in a non - kosher roll in chinatown , come off as silly ; yakin attempts to spice up the proceedings with each of sonia ' s many suitors for the promise of more of sonia ' s love , but they all fall flat . sonia ' s ghost - a male ghost even more so than a female one ! did i not know what to expect ? it ' s like something you chase for so long , but in the end , you do n ' t know how to react when you get it . i still do n ' t know how to react ! ! ! michael jordan on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997 SEP

[CLS] renee zellweger stars as sonia , a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn . her husband (glen ferriday) is a religious scholar whose all - in - a day ' s work attitude on sex fails to tame the fire " she feels within , as so she confesses to the rebbe (after hearing her fiery confessions , the rebbe suddenly gets frisky with his pleasantly surprised wife - and dies the next morning) . sonia ' s husband is a sensible man who wants to help his wife realize her dreams ; he gives her sonia ' s still - burning flame , on the job , sonia befriends ramon (allen payne) , a cool blast of hukio puerto rican water who does his own jewelry designs when not working as a grunt in an upscale jewelry store . can fire - taming be fast that be far ! what about the ever - smoldering sonia ? just about everything in writer - director boaz yakin rings false , starting with the improbably cast zellweger , who does an adequate enough acting job but simply looks too waxy for the role : a better fit would have been jessica margulies , who outshines zellweger as sonia 's take - no - crap sister - in - law . sonia 's baby steps toward liberation , such as indulging in a non - kosher egg roll sandwich , come off as silly , and her attempts to spice up the proceedings with the help of a male friend (a member of the rebbe ' s inner circle) are dead boring . zellweger 's ghost - i ' m like something you chase for so long , but then you do n ' t know what to expect , it ' s like something you chase for so long , but then you do n ' t know how to react when you get it . i still do n ' t know how to react . . . michael jordan on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997 **SLASH**



[CLNS] renes zellweger stars as sonia , a young jewish wife and mother frustrated by the constraints of her hasidic community in brooklyn . her husband (glenn Fitzgerald) is a religious scholar whose all - in - a - day 's work attitude on sex fails to tame the " fire " she feels within , as she confesses to the rebe (after hearing her fiery confessions). the rebe suddenly gets frisky with his pleasantly suppressed wife - - and dies the next morning . sensing her frustration , her husband 's brother (christopher eccleston) gives just a person 's job in his jewelry brokering business in exchange for raw , passionate sex that just fans sonia 's still - burning flame [on the job , sonia befriends rami (allen payne) , a cool bluesy hukkah-punk rican water who does own his own jewelry design which when nothing else is working , he can always fall back on . rami 's wife , tania , is a woman who 's been bad for the ever smoldering sonia] ? ! ! isn 't about everything in there - - diverse , broken yakin ' or rags false , starting with the improbably cast zellweger , who does an adequate energetic acting job but simply looks too wacky for the role ; a better fit would have been julianne margulies , who outshines zellweger as sonia 's tabo - no - crap sister - - and in , somehow , of sonia 's baby steps toward liberation , such as inducting a non - kosher egg roll in chinatown , come off as silly yakki attempts to spike up the proceedings with a touch of magical realism - - in the form of the recurring presence of sonia 's long - dead brother , tom 's ghost - - make like you feel even more hit if he already is ! ! ! i did n't know what to expect , it 's like something you chase for so long , but then you do n't know how to react when you get it , i still do n't know how to react ! ! ! - michael jordan on winning his first nba championship in 1991 . . . or , my thoughts after meeting him on november 21 , 1997 SEP

(h)

(i)

Figure 14: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention. (k) rollout.

...and a man who has been a good man all his life, and a good man's son, and a good man's son's son, and a good man's son's son's son, and so on, until he reaches the last man in the line, and that last man is about to strike earth, causing a catastrophe similar to the extinction level event (i.e., that wiped out the dinosaurs), what follows is the story of a president's bid to stop the good of his people, a rising reporter, the love story of two teenagers (one of whom discovered the comet), and a team of astronauts on the ship 'messiah' to save the world. firstly, there is nothing particularly *black* about it, in fact, it's quite the opposite, anything that sounds like a cliché is, but the plot lines make up the film form of a stupendous, to be honest, I was most moved by the trailer than the film itself which I did not enjoy much. mimi ledler's follow - up to *the peacemaker* is equally incompetent , with all the big stars wasted, I perhaps am annoyed that he released it as *the peacemaker* but it overshadowed *an american将军* (*the general*) it is very obvious that the title not only represented the big boom that will result from the collision, but also signifies the heavy impact on human lives , however, the film simply fails to deliver the effects of such a collision. the director, ronald dworkin, and the director of photography, gregory p. davis, have a wealth of good film - making credentials, she's still making good money though, I think, I mean, I'm a character, the news reporter, is the foundation of the story and of the cast, but her career can't be taken seriously because she is not a character, ronald dworkin's ailing astronaut is lifeless, and morgan freeman's president is restricted to , well, a righteous speech, I mean, he's not a very interesting character, leonard Nimoy's character is the only appealing one, and is played with reasonably conviction, but rather because flowing when reporting for news, but was definitely undermined by the director and screenwriter's warning speech included, for me, it's irrelevant and predictable answer (big hole) and has no holes, now, e. i. e. is threatening to exterminate more than 99 % of the human race ,

[CLS] there are so many things to criticize about it and I don't know where to start . . . I think it's a terrible movie . . . I mean, it's a terrible movie . . . I mean, it's a catastrophe because I think about it too much , a comet is about to strike earth , causing a catastrophe similar to the extinction level event (e . i . t .), that wiped out the dinosaurs what follows [is] the story of a president 's bid to think for the good of his people , a rising reporter , the love story of two teenagers (one of whom discovered the comet) , and a team of astronauts on the ship ' messiah ' to save the world . firstly , there is nothing outstandingly inferior about the making of the film (nor is there anything outstandingly good about it), but the plot holes make the film corny and stupid , to be honest , I was more moved by the trailer than the film itself (which I ' m not saying much) , mini-leader 's follow - up to ' the peacemaker ' is equally incompetent , with all the big stars wasted . (perhaps I ' m just annoyed that the release of ' the peacemaker ' in its overshadowed a far superior thriller , ' the assignment ') it is very obvious that the title only represents the big bummer that will result from the collision , but also the plot is extremely predictable and clichéd . the effects are way - out , the sub-standard screenplay limited the setting , and the director continued his sad run in terms of good - film - making credentials , she ' s still making good money though , t ' s leon ' s unfortunate character , the news reporter , is the foundation of the story and the cast , but [she] suffered from too many characters that do not need to be explored , robert duval ' s aging astronaut [is] lifeless , and morgan freeman ' s president [is] restricted to , well , a righteous president (which means he ' s not interesting at all) , leoni ' s character [is] the only appealing one , and I played with reasonable conviction (but a rather peculiar showing when reporting for nsbc) , but was definitely underplayed by the director and screenwriters warning : spoilers included (but a lot of it is irrelevant and predictable anyway) plot holes , plot holes , plot holes now , e . i . e . is threatening to exterminate more than 99 % of the human race , [SEP]

(a)

(b)

(c)

[CLS] there **were** so many things to criticize about **i do n't know** where to start. recommendation : **turn off** your brain - do **a** lte be like me , decreasing the rating everyday because i think about it too much , a comet is about to strike earth , causing a catastrophic similar to the extinction level event (e . i . e .) that wiped out the dinosaurs , what follows is the story of a president 's bid to think for the good of the people , a rising reporter ; the love story of two teenagers (one of whom discovered the comet) , and a team of scientists who **want** to " save the world " . firstly , there was a **lot** of information really inferior about the making of the film , and i was surprised (outstandingly good about it) , but **the plot holes** make **film** come **out** as **tiny** , to be honest , i was more moved by the trailer than the film itself (which is n't saying much) in minder 's follow - up to the " peacemaker " is **equally** **unpleasant** , with all the big stars **wasted** . (perhaps i 'm just annoyed that the release of " the oblivious " in us overshadowed a far superior thriller , ' the assignment ') it is very obvious that the title not only represents the big boom that will result from collision , but also conveys the heavy impact on humans lives . however , **film simple** **on** that **note** . the effects are **worn** **out** , the substandard acting , and the director **completely** **lost** **in** terms of **good** - film - making credentials ; she 's still unable to make a decent movie , and i am not sure if she has the ability to do so . the foundation of the story and of the cast , **but** , **but** , **but** , from **so many** characters that do not need to be explored . robert dulay 's aging astronaut is **bleeding** , and morgan freeman 's president is restricted to , well , a righteous president (which means he 's not interesting at all) . leoni 's character is the only appealing one , and is played with reasonable conviction (but a rather peculiar showing when reporting for inclusion) , but was definitely undervalued by the director and screenwriters . warning : **spoiler** included (but a lot of it is irrelevant and predictable anyway) **plot holes** , **holes** , **plot holes** , **holes** , **holes** , e . i . e . is threatening to exterminate more than 99 % of the human race [SEP]

(d)

(e)

(f)

[CLS] there are so many things to criticize about i do n't know where to start recommendation : turn off the brain - do n't let me , decreasing the rating everyday because i think about it too much , a comet is about to strike earth , causing catastrophe similar to the extinction level event (e . i . c .) that wiped out the dinosaurs what follows is a story of a president 's bid to think for the good of his people a rising reporter , the love story of two teenagers (one of whom discovered the comet) , and a team of astronauts on the ship ' messiah ' to save the world [I] firstly , there is nothing outstandingly inferior about the making of the film (nor is there anything outstandingly good about [I]) , but the plot holes make the film corny and stupid [I] be honest [I] was more moved by the trailer than the film itself (which is n't saying much) , mini leder 's follow - up ' to the 'peacemaker' is equally incompetent , with all the big stars wasted [I] (perhaps i am just annoyed that the release of 'the peacemakers' in the us overshadowed a far superior thriller , 'the assignment' [I] it 's very obvious that the title not only represents the big boom that will result from the collision , but also connotes the heavy impact on human lives . however , the film simply falls flat on its note . the effects are worn - out , the submarine screenplay limited the acting [and] the director continued her sad run in terms of good : film - making credentials [she 's still making good money though , t 's a leon 's unfortunate character , the news reporter [the foundation of the story and the cast] but the film suffers from too many characters that do not need to be explored , robert dulay 's aging astronaut is lifeless , and morgan freeman 's president is restricted to , well , a righteous president (which means he 's not interesting at all) . leon 's character is the only appealing one , and played with reasonable conviction (but a rather peculiar showing when reporting for 'msb ') , but was definitely underplayed by the director and screenwriters . warning : spoilers included (but a lot of it is irrelevant and predictable anyway) . plot holes , plot holes , plot holes [now , e . i . c .] is threatening to exterminate more than 99 % of the human race , plot holes [now , e . i . c .]

[CLS] there are so many things to criticize about i do n't know where to start - one recommendation : turn off your brain - do n't let me , decreasing the rating everyday because i think about it too much , a comet is about to strike earth , causing a catastrophe similar to the extinction level event (e . i . , comet) . what follows is the story of a president 's bid to think for the good of his people , a rising reporter , the love story of two teenagers (one of whom discovered the comet) , and a team of astronauts on the ship 'messiah' to save the world , firstly , there is nothing outstandingly inferior about the making of the film (nor is there anything outstandingly good about it) , but the plot holes make the film corny and stupid , to be honest , i was more moved by the trailer than the film itself (which is n't saying much) , mind leder 's follow - up 'to the peacemaker' is equally incompetent , with all the big stars wasted . (perhaps i 'm just annoyed that the release of 'the peacemaker' in us overshadowed a far superior thriller , 'the assignment') , it is very obvious that the title not only represents the big boom that will result from the collision , but also connotes the heavy impact on human lives . however , the film simply fails to deliver note , the effects are worn - out , the submarine scrapley limited the acting , and the director continues her sad run in terms of good - film - making credentials , she 's still making good money though . t 'a leoni 's unfortunate character , the news reporter , is the foundation of the story and the cast , but the film suffers from too many characters that do not need to be explored . robert duvall 's aging astronaut is lifeless , and morgan freeman 's president is restricted to , well , a righteous president which means he 's not interesting at all) . leoni 's character is the only appealing one , and is played with reasonable conviction (but a rather peculiar showing when reporting for usc) , but was definitely underplayed by the director and screenwriters . warning : spoilers included (but a lot of it is irrelevant and predictable anyway) . plot holes , plot holes , plot holes now , e . i . , is threatening to exterminate more than 99 % of the human race , plot holes now , e . i . , is threatening to exterminate more than 99 % of the human race , plot holes

[CLS] there are so many things to criticize about i don't know where to start . recommendation : turn off your brain - do n't be like me , decreasing the rating everyday because i think about it too much , a comet is about to strike earth , causing a catastrophe similar to the extinction level event (e . i . e .) that wiped out the dinosaurs , what follows is the story of a president 's bid to think for the good of the people , a rising reporter , the love story of two teenagers (one of whom discovered the comet) , and a team of astronauts on the ship 'messiah' to save the world . firstly , there is nothing outstandingly inferior about the making of the film (nay , there is anything outstandingly good about it) , but the plot holes make the film corny and stupid , to be honest , i was more moved by the trailer than the film itself (which is a 'n't saying much) , mind leder 's follow - up to 'the peacemaker' is equally incompetent , with all the big stars wasted . (perhaps i 'm just annoyed that the release of 'the peacemaker ' in its overshadowed a far superior thriller , 'the assignment') . it is very obvious that the title not only represents the big boom that will result from the collision , but also conveys the heavy impact on human lives . however , the film simply fails on that note . the effects are worn - out , the humanoid screenplay limited the acting , and the director continued her sad run in terms of good - film - making credentials , she 's still making good money though . t ' leon 's unfortunate character , the news reporter , is the foundation [] the story and of the cast , but the film suffers from too many characters that do not need to be explored . robert duval 's aging astronaut is lifeless , and morgan freeman 's president is restricted to , well , a righteous president (which means he 's not interesting at all) . leon 's character is the only appealing one , and is played with reasonable conviction (but a rather peculiar showing when reporting for nsbc) , but was definitely underplayed by the director and screenwriters . warnings : spoilers included (but a lot of it is irrelevant and predictable anyway) . plot holes , plot holes , plot holes . now , e . i . e . is threatening to exterminate more than 99 % of the human race . [SEP]

(g)

(h)

(i)

[CLS] there're so many things to criticize about i do n't know where to start recommendation : sum of your brain - do n't be like me , decreasing the rating everyday because i think about it too much , a comet is about to strike earth , causing a catastrophe similar to the extinction level event (e . i . e .) that wiped out the dinosaurs what follows is the story of a president's bid to think for the good of his people a rising reporter , the love story of two teenagers (one of whom discovered the comet) and a team of astronauts on the ship ' messiah ' to save the world (firstly , there is no hint whatsoever about the making of the film) but if this is anything like a movie i have seen recently , the lead character is the most interesting . to be honest i was more moved by the trailer than the film itself (which is n't saying much) mind i let's follow up to the peacockman 's equally incompetent , with all the big stars wasted ! (a far superior thriller , ' the assignment ') it is very obvious that the title not only represents the big boom that will result from the collision , but also connotes the heavy impact on human lives . however , the film simply fails on that note . the effects are worn out , the substancial screenplay limited the acting (and she 's still a good actress) and the plot is extremely predictable . the main character is the foundation of the story and of the cast , rupert dunne 's aging astronaut is lifeless , morgan freeman 's president is restricted to , well , a righteous president (which means he is not interesting at all) , leon is the only appealing one , and i played with reasonable conviction (but a rather peculiar showing when reporting for msnbc) , but was definitely underplayed by the director and screenwriters . warning : spoilers included (but a lot of it is irrelevant and predictable anyway) 99 % of the humor has [REDACTED] now ; e . i . e . is threatening to exterminate more than 99 % of the human race [REDACTED]

[CLS] there are so many things to criticize about it i don't know where to start recommendation : turn off your brain - do n't be like me , decreasing the rating everyday because i think about it too much , a comet is about to strike earth , causing a catastrophe similar to the extinction level event (e . l . e .) , what about the dinosaurs who was the story of a president 's bid to think for the good of his people a rising reporter , the love story of two teenagers (one of whom discovered the comet) , and a team of astronauts on the ship 's mission to save the world . firstly , there is nothing whatsoever inferior about the 'making of' film (nor is there anything that is superior to it) . i do not like the movie at all . i am not going to be honest , i was more moved by the trailer than the film itself (which is n't saying much) . mini ledger 's follow - up to 'the peacemaker' is equally incomprehensible with the big stars wasted . (a perhpars i 'm just annoyed that the release of 'the peacemaker' in us overshadowed a far superior thriller , 'the assignments' .) it is very obvious that the title not only represents the big boom that will result from the collision , but also connotes the heavy impact on human lives . however , the film simply fails . that note , the effects are worn - out , the substancial screplay limited the acting , and the director commisioned her sad - faced in terms of god - filming credentials . she 's still a good actress , but she has been typecast as a woman who always wears a hat . the foundation of the story and of the cast , but the film suffers from many shortcomings . the plot is predictable , the characters are clichéd , the dialogue is overacted , the news is irrelevant , that do not need to be explored . robert downey 's aging astronaut is lifeless , and morgan freeman 's president is restricted to , well , a righteous president (which means he 's not interesting at all) . leon 's character is the only appealing one , and is played with reasonable conviction (but a rather peculiar showing when reporting for insube) . but was definitely undervalued by the director and screenwriters . warning : spoilers included (but a lot of it is irrelevant and predictable anyway) . plot holes , plot holes , plot holes . now , e . l . e . is threatening to exterminate more than 99 % of the human race .

(j)

(k)

Figure 15: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention. (k) rollout.

[CLS] do n't let this movie fool you into believing the romantic noirs of william shakespeare, no one will truly understand the heart and soul of this man except through his work , and this movie has a tiny attempt at that . any move to " glamourise his life , which hollywood has an amazing tendency to do , would subtract from his achievement rather than expand on his greatness . the movie about his life , probably well written , just too much make - up on a man whose life was probably more potholed and potatos , rather than leather and champagne . who fell , fall in love with a beautiful woman he barely knew , and fall in love with her deeply , then run away with her and juliet , and let the twelfth night ? it is easier for me to believe that he had a woman in his life , and that 's how all his plays develop , but please spare me all of this unnecessary melodrama , but i guess my version probably won't draw a man crowd or make a blockbuster on screen , so is there any justification in romanticising the man shakespeare , when all we need to do is read his work in order to find his soul , i think not . as for the oscars , were they deserved by this movie ? i think not , in many aspects ? private ryan ' and the last of us all were far superior movies , but one should never assume that this should be a criteria for winning an oscar , as time and again , for reasons unexplained an undeserving movie will win the accolade . another sore point is the fact that gwyneth won the best female lead , over a more polished cate , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you . [SEP]

[CLS] don't let this movie fool you into believing the romantic noirs of william shakespeare, no one will truly understand the heart and soul of this man except through his work, and this movie makes a vain attempt at that. any moves to 'glamorise' his life, which hollywood has an annoying tendency to do, will only subtract from his achievement rather than expand on his greatness. this movie about his life, although well written, puts too much make - up on a man whose life was probably very poor and potatoes, rather than lobster and champagne... oh well, it's a fantastic comedy i assume that he was a bit of a playboy, a writer, who fell in love with a beautiful woman, and had a son with her, who became a writer, and then died in a car accident and jilts... and 'the seventh night', it is easier for me to believe that he had a wet dream and that's how all his plays develop, but please spare me all of this unnecessary melodrama, but i guess my version probably wouldn't draw a crowd or make a dollar on screen, so is there any justification in romanticising the man shakespeare, when all we need to do is read his work in order to find his soul, i think not. as for the oscars were they deserved by this movie? i think not, in many aspects? private ryan? and? life is beautiful' were far superior movies, but one should never assume that this should be a criteria for winning an oscar, as time and again, for reasons unexplained, an undeserving movie will win the accolade. another sore point is the fact that gwyneth paltrow's best female lead, over a more polished cast, but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you. [SEP]

(a)

[CLS] do n't let **this** movie fool you into believing the romantic noirs of william shakespeare . no one will truly understand the heart and soul of this man except through his work , and **this** movie makes **a** vain attempt at that . any moves to **glamorise** his life , which hollywood has an **amazing** tendency to do , **will** only subtract from his achievement rather than expand on his greatness . **the** movie about his life , although well written , **puts** too much make - up on a man whose life was probably more pork and potatoes , rather than lobster and champagne . oh well , let ' s fantasise onwards and assume that he was a bit of a flirtatious play - writer , who falls in love with a beautiful woman (gwyneth paltrow) and finds inspiration , seven plays develop , + someone steals his work , and he ends up in jail . it is a good film for people to be interested in drama and that ' s how all his plays develop , but please ignore all of **this unnecessary miseducation** , but i guess my version probably would n't draw a crowd or make a dollar on screen , so is there any justification in romanticising the man shakespeare , when all we need to do is read his work in order to find his soul . i think not . as for the oscars , were they deserved by this movie ? i think not . in many aspects ? private ryan ' s ? life is beautiful ? were far superior movies , but one should never assume that this should be a criteria for winning an oscar , as time and again , for reasons unexplained an undeserving movie will win the accolade . another **sore point** is the fact that gwyneth won the best female lead , over a more polished case , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you . [SEP]

[CLS] don't let this movie fool you into believing the romantic noirs of william shakespeare - no one will truly understand the heart and soul of this man except through his work, and this movie makes a vain attempt at that. any movie to glorify his life, which hollywood has an annoying tendency to do, will only subtract from his achievement rather than expand on his greatness. this movie about his life, although well written, puts too much emphasis on his greatest movies about his life, although well written, puts too much emphasis on a man whose life was probably more pork and potatoes, rather than lobster and champaigne. oh well, let's fantasise about what he was a bit of a flirtatious play - write, who falls in love with an beautiful woman (gwyneth paltrow) and ends up getting married to her. it's romantic and jolly, but i think the writing plays right, it is easier for us to believe that he's a good dream and that's how all his plays develop, but please spare me all of this unnecessary melodrama, but i guess my version probably wouldn't draw a crowd or make a difference on screen, so is there any justification in romanticising the man shakespeare, when all we need to do is read his work in order to find his soul. i think not, as for the escapist movies that are made about him, i think not, in many aspects ? private ryan' and saving private ryan were far superior movies, but one should never assume that this life should be a criteria for winning an oscar , as time and again, for reasons unexplained an undeserving movie will win the accolade. another sore point is the fact that gwyneth won the best female lead, over a more polished cast, but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you. [SEP]

[CLS] do n't let this movie fool you into believing the romantic noirs of william shakespeare . no one will truly understand the heart and soul of this man except through his work , and this movie makes a vain attempt at that . any moves to ? glamourise his life , which hollywood has an annoying tendency to do , will only subtract from his achievement rather than expand on his greatness | this movie about his life , although well written | puts too much make - up on a man whose life was probably more pork and potatoes , rather than lobster and champagne | oh well , 's fantasise onwards an assume that he was a bit of a flirtatious play - write , who fell in love with a beautiful woman | gwyneth paltrow is a very good actress , she can pull off some things | i am not a fan of jude law though | in the eighth night | it is easier for me to believe that he had a wet dream and that 's how all his plays develop , but please spare me all of this unnecessary melodrama | but i guess my version probably would n't draw a crowd or make a dollar on screen | so is there any justification in romanticising the man shakespeare , when all we need to do is read his work in order to find his soul . i think not . as for the oscars were they deserved by this movie ? i think not . in many aspects ? private ryan ' and life is beautiful ' were far superior movies , but one should never assume that this should be a criteria for winning an oscar , as time and again , for reasons unexplained , an undeserving movie will win the accolade | another sore point is the fact that gwyneth won the best female lead , over a more polished candidate , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you . [SEP]

[CLS] do n't let **this** movie fool you into believing the romantic noirs of william shakespeare... no one will truly understand the heart and soul of this man except through his work, and **this** movie makes **any** attempt at that, **any** only to glorify his life, which hollywood has **an** avenging tendency to do, **will** only subtract from his achievement rather than expand on his greatness. **the** movie about **him** ; although well written, **puts** too much **emphasis** up on a man whose life was **primarily** made up of women (gwyneth paltrow) and a man blower (ben affleck) who is **surprised** to find out he **assumed** that he was a bit of a flirtations play -writer-, who falls in love with a beautiful woman (gwyneth paltrow) and from her inspiration, several plays develop -? someone dreamt and julet ? and ' the twelfth night ' : it is easier for me to believe that he had a wet dream and that's how all his plays develop, but please spare me **all** of **this unnecessary melodrama**, but i guess my version probably would n't draw a crowd or make a dollar on screen , so is there any justification in romanticising the man shakespeare , when all we need to do is read his work in order to find his soul . i think not , as for the oscars were they deserved by this movie ? i think not , in many aspects ? private ryan ' and **beautiful** were far superior movies , but one should never assume that this should be a criterial for winning an oscar , as time and again , for reasons unexplained , an **uninteresting** movie will win the accolade ; **another sore point** is the fact that gwyneth was the best female lead , over a more polished case , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you . **[SEP]**

[CLS] do n't let this movie fool you into believing the romantic noirs of william shakespeare . no one will truly understand the heart and soul of this man except through his work , and this movie makes a vain attempt at that . any moves to ? glamourise his life , which hollywood has an annoying tendency to do , will only subtract from his achievement rather than expand on his greatness . this movie about his life , although well written , puts too much ' up on a man ' whose life was plain , simple , moral , porky and full of passion than bluster and noise . i would let it pass , unless you assume that he was a bit of a flirtations play - write , who falls in love with a beautiful woman (gwyneth paltrow) and from her inspiration] several plays develop . ?romeo and juliet ' and ' the twelfth night ' is easier for me to believe that he had a wild dream and that 's how all his plays develop , but please spare me all of this unnecessary melodrama . but i guess my version probably would n't draw a crowd or make a large profit on screen . so there is any justification in romanticising the man shakespeare , when all we need to do is read his work in order to find his soul . i think not . as for the oscars were they deserved by this movie ? i think not . in many aspects ? private ryan ' and life is beautiful ' were far superior movies , but one should never assume that this should be a criterial for winning an oscar , as time and again , for reasons unexplained an underachieving movie will win the accolade . another sore point is the fact that gwyneth won the best female lead , over a more polished cast , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you . [SEP]

[CLS] do n' t let this movie fool you into believing the romantic noirs of william shakespeare . no one will truly understand the heart and soul of this man except through his work , and this movie makes a vain attempt at that . any moves to ? glamourise his life , which hollywood has an annoying tendency to do , will only subtract from his achievement rather than expand upon his greatness . this movie about his life , although well written , wants to make me up on a man whose life was probably filled with work and poverty , rather than leisure and wealth . well , he 's a fantasist encounter and assume that he was a bit of a flirtations play - writer , who falls in love with a beautiful woman (gwyneth paltrow) and from her inspiration [] several plays develop - ? romeo and juliet , and ? the twelfth night , it is easier for me to believe that he had a wet dream and that ' s how all his plays develop , but please spare me all of this unnecessary melodrama , but i guess this movie probably would n' t draw a crowd or make a dollar on screen , so is there any justification in romanticising the man shakespeare , when all we need to do is read his work in order to find his soul . i think not . as for the oscars were they deserved by this movie ? i think not , in many aspects ? private ryan ? and ' life is beautiful ' were far superior movies , but one should never assume that this should be a criterion for winning an oscar , as time and again for reasons unexplained , an undeserving movie will win the accolade . another point point is the fact that gwyneth won the best female lead , over a more polished cast , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised - people will start feeling sorry for you . [SEP]

[CLS] do n't let **this** movie fool you into believing the romantic noirs of william shakespeare... no one will truly understand the heart and soul of this man except through his work, and **this movie makes** a **want** attempt at that... **any** movie to glorify his life, which hollywood has **a** **tendency** to do, **any** movie to make him look like a **hunk** although well written, **just** **not** **much** make - up on a man whose life was probably more problems and potlucks, rather than lobster and champagne | oh well, let's fantasise onwards and assume that he was a bit of a flirtations play - writer , who falls in love with a beautiful woman (gwyneth paltrow) and from her inspiration, several plays develop - > **romeo and juliet** , and **the twelfth night** | it is easier for me to believe that he had a wetter dream and that's how all his plays develop, but please **sense me all** of this unnecessary melodrama | but i guess my version probably would n't draw a crowd or make for a dollar amount on screen | so there is any justification in romanticising the man shakespeare , while all the other reviews seem to be focused on his life, i think that's what makes him great, as for the **actors** that they chose by the way? i think not... in many aspects? **gwyneth paltrow** is **absolutely** **hilarious** as **rosaline** for some reason, i don't know if it's because she seems that she should be a criteria for winning an oscar , as time and again , for reasons unexplained **an undeserving** movie will win the academy | **another** **big point** is the fact that gwyneth won the best female lead , over a more polished cast , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised , people will start feeling sorry for you . [SEP]

[CLS] do n't let this movie fool you into believing the romantic noirs of william shakespeare , no one will truly understand the heart and soul of this man except through his work , and this movie makes a vain attempt at that . any move to " glorify his life " , and which hollywood has an amazing tendency to do , will only subtract from his life . i am not a fan of gwyneth paltrow , and i would like to see her in another role . she is well spoken , puts too much make - up on a man whose life was probably more pork and potatoes , rather than lobster and champagne . oh well , let ' s fantasise onwards ! i assume that he was a bit of a flirtations play - writer , who falls in love with a woman (gwyneth paltrow) and from her inspiration , several plays develop - ? romeo and juliet ? , and ? the twelfth night ? . it is easier for me to believe that he had a few dreams and that ' s how all his plays develop , but please spare me all of this unnecessary melodrama . but i guess my version probably would n't draw a crowd or make a dollar on screen , so is there any justification in romanticising the man shakespeare , when all we need to do is read his work in order to find his soul . i think not . as for the oscars they need to be given to a film that means something , in more aspects than purely ratings . but i feel hamlet deserves it , for some reason . but i still believe , that there should be a criteria for winning an oscar , as time and again , for reasons unexplained , an undeserving movie will win the accolade . another sore point is the fact that gwyneth won the best female lead , over a more polished cast , but i guess if you go on enough about your grandfather dying and your nephew being hospitalised , people will start feeling sorry for you . **SOPHIE**

Figure 16: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (negative sentiment). Note that the BERT prediction on this sample was accurate. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention.

[CLS] it's a good thing most animated sci - fi movies come from japan , because a man named kubo who 's one of the last survivors of earth in the early 21st century who unknowingly possesses the key to saving and re - generating what 's left of the human race . that 's a fine premise for an action - packed sci - fi animated movie , but there is no payoff . the story takes the main characters all over the galaxy in their search for a legendary ship that the evil "dreadge" alliance want to destroy for no apparent reason . so in the process we get a lot of spacefights , lightnings , blaster fights and most double - crosses than you can shake a stick at . there 's so much sci - fi action packed into it 's too much to take , the galaxy here is a rip - off of the "star wars" universe . the creators do n't bother filling in the basic details which makes the story confusing , the characters unmotivated and superficial and the plot just plain boring . despite the fantastic animation and special effects , it 's just an interesting movie . [SEP]

[CLS] it's a good thing most animated sci - fi movies come from japan , because titan a . e . what if Hollywood does n't have a clue how to do it . do i do n't know what this film is supposed to be about , from what i can tell it 's about a young man named kane who is one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race . that 's fine a premise for an action packed sci - fi animated movie , but there 's no payoff . the story takes the main characters all over the galaxy in their search for a legendary ship that the evil "dredge" allows want to destroy for no apparent reason . so in the process we get a lot of spaceship fights , hijackings , blaster fights and more double - crosses than you can shake a stick at . there 's so much pointless sci - fi banter it 's too much to take . the galaxy here is a total rip - off of the "star wars" universe the creators do n't bother filling in the basic details which makes the story confusing , the characters unmotivated and superficial and the plot just plain boring . despite the fantastic animation and special effects , it 's just not very interesting . [SEP]

(a)

[CLS] it's a good thing most animated sci - fi movies come from japan, because " i am t. a. e. " proof that hollywood doesn't have a clue how to do it . i do n't know what that film is supposed to be about . from what i can tell it's about a young man named kai who is one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race . that's a fine premise for an action - packed sci - fi animated movie , but there is no payoff . the ~~rest~~ ^{rest} makes the main characters all look like galaxy searchers for a legendary ship that the evil ~~dread~~ ^{dread} aliens want to destroy for unknown reasons . the characters are all a lot of blabber , fasttalking , blithe flight and mooning and double - crosses than you can shake a stick at . there 's so much pointless sci - fi banter . ~~it's too much to take~~ ^{it's too much to take} , the galaxy here is a total rip - off of the " star wars " universe . the creators do n't bother filling in the basic details which makes the story confusing . the characters unimivated and superficial and the plot just plain boring , despite the fantastic animation and special effects , it 's just not an interesting movie . [SEP]

[CLS] it's a good thing most animated sci - fi movies have come from Japan , because a man a . e . 's proof that hollywood doesn't have a clue how to do it . i do n't know what this film is supposed to be about , from what i can tell it's about a young man named kalo who's one of the last survivors of earth in the early 21st century who unknowingly possesses the key to saving humanity . he is the last of the human race , that 's a fine premise for an action - packed sci - fi animated movie , but there is no payoff , the [redacted] takes the main character and all the galactic search for a legendary ship that the end "edge" allows us to destroy for the sake of saving the galaxy . there is a lot of hand - to - hand fighting , fistfights , blaster fights and some double - crosses than you can shake a stick at , there 's so much pointless sci - fi banter it 's too much to take . the galaxy here is a total rip - off of the "star wars" universe , the characters do n't bother filling in the basic details which makes the story confusing , the characters unmotivated and superficial and the plot just plain boring , despite the fantastic animation and special effects , it 's just not an interesting movie . [SEP]

[CLS] it's a good thing most animated sci - fi movies come from japan, because a. e. a proof that hollywood does n't have a clue how to do it, i do n't know what this film is supposed to be about, from what i can tell it's about a young man named kalo who's one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race, that's a fine premise for an action - packed sci - fi animated movie, but there's a problem, **[REDACTED]** the main characters all look like galaxy in their search for a legendary ship that the evil **[REDACTED]** alliance is destroying to find the reason they're attacking, **[REDACTED]** get it, spaceship fight, fistfights, blaster fight and double - crosses than you can shake a stick at, there's so much pointless ch - banter it's too much to take, the galaxy here is a total rip - off of the star wars universe the creators do n't bother filling in the basic details which makes the story confusing, the characters unimpressive and superficial and the plot just plain boring, despite the fantastic animation and special effects, it's just **not** an interesting movie. [SEP]

(d)

[CLS] it's a good thing most animated sci - fi movies come from japan, because - a t a c - e - proof that hollywood doesn't have a clue how to do it [it] don't know what that film is supposed to be about [from what i can tell it's about a young man named kalo who is one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race that is a fine premise for an action packed sci - fi animated movie, but there is no payoff] the story takes the main characters all over the galaxy in their search for a legendary ship that the evil "dredge aliens" want to destroy for no apparent reason so in the process we get a lot of spaceights, lightblasts, blasterights and more double - crosses than you can shake a stick at [there's so much pointless set - fi banter it's too much to talk about] the galaxy here is a total rip - off of the star wars universe the creators do it better filling in the basic details which makes the story confusing, the characters unmotivated and superficial and the plot just plain boring despite the fantastic animation and special effects, it is just not an interesting movie. [SEP]

[CLS] it's a good thing most animated sci - fi movies come from *japan* , because a lot of them are **terrible** . **[C]** is proof that hollywood doesn't **have** a clue how to do it . i do n't know what this film is supposed to be about . from what i can tell it is about a young man named **hiko** who **is** one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what left of the human race . that's a fine premise for an action - packed sci - fi animated movie , but there is no payoff . the story takes the main characters **all over** the galaxy in their search for a legendary ship that the evil "dread" aliens want to destroy for no apparent reason . so in the process we get a lot of spaceship lights , blaster lights and most double - crosses than you can shake a **stick** at . **[T]**here is so much point - scifi in this movie it is too much to **believe** the galaxy here is a total rip - off of the "star wars" universe . the creators do n't bother filling in the basic details that makes the story confusing , the characters unimpressive and superficial and the plot just plain boring . despite the fantastic animation and special effects , it's just not an interesting plain movie . **[SEP]**

[CLS] it's a good thing most animated sci - fi movies come from japan , because a film like [CLS] is proof that hollywood does n't have a clue how to do it . i do n't know what this film is supposed to be about , from what i can tell it's about a young man named halo who is one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race . that's fine premise for an action - packed sci - fi animated movie , but there's no payoff , the story takes the main characters all over the galaxy in their search for a legendary ship that the evil "dreadge" aliens want to destroy for no apparent reason , so in the process we get a lot of spaceship fights , blaster fights and more double - crosses than you can shake a stick at . there's so much pointless sci - fi banter it's too much to take , the galaxy here is a total rip - off of the "star wars" universe the creators do n't bother filling in the many details which makes the story confusing , the characters unconvincing and superficial and the plot just plain boring , despite the fantastic animation and special effects , it's just not an interesting movie . [SEP]

(g)

[CLS] it's a good thing most animated s_f movies come from japan, because - taut a. e. - proof that hollywood does n't have a clue how to do it [d] o n't know what this film is supposed to be about [from what i can tell it's about a young man named kyle who is one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what is left of the human race [that's a fine premise for an action : packed s_f animated movie, but there's no payoff] the story takes the main characters all over the galaxy in their search for a legendary ship that the evil "dread" aliens want to destroy for no apparent reason so in the process we get a lot of spaceship fights, fistfights, blaster fights and more double - crosses than you can shake a stick at [there's so much pointless set - fi banter it's too much to talk about the galaxy here is a total rip - off of the "star wars" universe the creators do n't bother filling in the basic details which makes the story confusing, the characters uninvolved and superficial and the plot just plain boring despite the fantastic animation and special effects, it is just as interesting here [SEP]

[CLS] it's a good thing most animated sci - fi movies come from japan , because a man named kai who 's one of the last survivors of earth in the early 31st century who unknowingly possesses the key to saving and re - generating what left of the human race . that 's a fine premise for an action - re - sci - fi animated movie , but there is no payoff , the story takes the main characters all over the galaxy in their search for a legendary ship that the evil "dread" aliens want to destroy for no apparent reason , so in the process we get a lot of spaceship fights , fistfights , blaster fights and most double - crosses than you can shake a stick at , there 's so much pointless sci - fi bantit that it 's too much to take , the galaxy here is a total rip - off of the "star wars" universe the creators do n't bother filling in the basic details which makes the story confusing , the characters unimproved and the plot just plain boring , despite the fantastic animation and special effects , it 's just not an interesting movie . **SEN**

(j)

at rely on a specific class for propagation, we present b
nostic. Some words are split into multiple tokens by the
Our method for the ground truth [GT] class. (c) Our met

both the ground-truth and counter-factual results. The following table compares the performance of the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT tokenizer performs well for the ground-truth [CLS] class. (b) A method for the counter-factual [CLS] class. (c) Partial LRP for the ground-truth [CLS] class. (d) Partial LRP for the counter-factual [CLS] class.

Figure 17: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention. (k) rollout.

[CLS] my inner flag was at half - mast last year when nick at nite pulled "dragnet" reruns off the air , sun , i 'd seen them all at least once , but i could always count on at least a few inadvertent laughs from ultra - serious jack webb when there was nothing else on tv . even though "dragnet" is out of circulation at the moment , we Webb anti - fans still have the d . i . [§ 50] s propaganda piece for the military that is almost as hilarious as the famous "blue boy" episode of "dragnet" . for anyone like me who grew up laughs out of webb's rapid - fire speeches and straight - faced seriousness , think of the d . i . as what would happen if sgt . fraser had never enlisted , because he plays exactly the same character here , a no - nonsense , fair - go looks with a deadpan delivery . the production values are low budget , make believe , and it has echoes on any topic . in this election year , i 'm more convinced than ever that webb and bob dylan were separated at birth . the movie opens in characteristic fashion , as one recruit after another knocks on webb's office door and enters , he gives each one a different series of cranky criticisms before the credits come up , the "produced and directed by jack webb" card pretty much goes without saying . this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if there would even be a plot . i certainly would have been entertained by an hour and a half of trademark webb rants , but the d . i . gives us more - - much more . webb's mission is to make a man out of private owners , the local screw - up , the captain gives webb three days to convert owners into marine material or , the captain will "personally cut the face of his pants and ship him out myself ." (whether the "lace pants" part refers to webb or owners remains unanswered .) this , of course , gives webb an excuse to focus all his crotchety energy on middle - aged men living in the past ; for those of you who haven't been indoctrinated into the pleasure of webb watching , here 's a reprint of a typical monologue of his : i can't duplicate his hilarious delivery on paper , but the words should at least partially convey what i 'm talking about . [SEP]

[CLS] my inner flag was at half - mast last year when nick at nite pulled "dragnet" reruns off the air... i'd seen them all at least once , but i could always count on at least a few inadvertent laughs from ultra - serous jack webb when there was nothing else on tv . even though "dragnet" is out of circulation at the moment , we Webb & fans still have the d . i . [§ 50] propaganda piece for the military that is almost hilarius as the famous "blue boy" episode of "dragnet" . for anyone like me who got caught out of webb's rapid - fire speeches and straight - faced seriousness , think of the d . i . what would happen if greg . joe fiday ever enlisted . because he plays exactly the same character here , a no - nonsense , fast talker who looks with disdain at the younger generation and gives long - winded explanations of his own opinions on topics in this section year ... i'm more concerned than ever that webb and bob doyle separated at birth . the movie opens in characteristic fashion as one recruit after another knocks on webb's office door and , he gives each one a different series of crticisms before the credits come up . the "produced and directed by jack webb" card pretty much goes without saying , this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if what would ever be a play ... i certainly would have been entertained by an hour and a half of trademark webb rants , but the d . i . gives us more -- much more , webb's mission is to make a man out of private owns , the local screw - up , the captain gives webb three days to convert owns into marine material or , the captain will "personally cut the lace off his panties and ship him out myself" . (whether the "lace panties" part refers to webb or owns remains unanswered) His [§ 50] of course , gives webb an excuse to focus on his crotchetiness energy on making owners "live a living hell" . for those of you who haven't been indoctrinated into the pleasures of bbb watching , here '§ 50' reprint a typical monologue of His [§ 50] can 't duplicate his hilarius delivery on paper , but the words should at least partially convey what i 'm talking about . . . [SEP]

[CLS] my inner flag was at half - mast last year when nick at nite pulled " dragnet " reruns off the air . sure , i 'd seen them all at least once , but i could always count on at least a few inadvertent laughs from ultra - serious jack webb when there was nothing else on tv . even though " dragnet " is out of circulation at the moment , we webb anti - fans still have the d . i . [REDACTED] 50's propaganda piece for the military that is almost as hilarious as the famous " blue boy " episode of " dragnet ." for anyone like me who grew laughs out of webb 's rapid , fire speeches and straight - faced seriousness , think of the d . i . as what would happen if sgt . joe friday ever enlisted , because he plays exactly the same character here . a more ... unconvincing farce looks like a better fit for the topic . in this election year , i 'm more convinced than ever that webb and bob bobs were separated at birth . the movie opens in characteristic fashion as one recruit after another knocks on webb 's office door and enters , he gives each one a different series of cranky criticisms before the credits come up . the produced and directed by jack webb " card pretty much goes without saying . this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if there would even be a plot . i certainly would have been entertained by an hour and a half of trademark webb rants , but the d . i . gives us [REDACTED] -- much [REDACTED] , webb 's mission is to make a man out of private owners , the local screw - up , the captain gives webb three days to convert owners into marine material , or the captain will " personally cut the lace off his panties and strip him out myself " (whether the " lace panties " part refers to webb or owners remains unanswered) [REDACTED] of course , gives webb an excuse to focus all his crotchety energy on making owners a live living hell for those of you who have n 't been indoctrinated into the pleasures of webb watching , here [REDACTED] of a typical monologue of his . i can 't duplicate his hilarious delivery on paper , but the words should at least partially convey what i 'm talking about . [SEP]

[CLS] my inner flag was at half - mast last year when nick at nite pulled " dragnet " reruns off the air , sure , i 'd seen them all at least once , but i could always count on at least a few inadvertent laughs from ultra - serious jack webb when there was nothing else on tv . even though " dragnet " is out of circulation at the moment , we webb anti - fans still have the d . i . , a 50 's propaganda piece for the military that is almost as hilarious as the famous " blue boy " episode " dragon " . for anyone like me who lets go laughs out of webb 's rapid - fire speeches and " dragnet " 's lone , inane , ridiculous , think of the world as a place of wonder , innocence , and freedom , i enlarged , he became , he played the same character here , a no - nonsense old fart who looks with disdain at the younger generation and loves to give long - winded , megalomaniac speeches on any topic . in this election year , i 'm more convinced than ever that webb and bob dole were separated at birth , the movie opens in characteristic fashion as one [REDACTED] after another knockers on webb 's office door and enters , he gives each one a different series of cranky criticisms before the credits come up , the " produced and directed by jack webb " card pretty much goes without saying , this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if there would even be a plot . i could certainly have been entertained by an hour and a half of trademark webb rants , but the d . i . gives us more ! - much more . webb 's mission is to make a man out of private swans , the local screw - up , the captain gives webb three days to convert swans into marine material or , the captain will " personally cut the face off pants and ship him out myself " . (whether the " lace panties " part refers to webb or [REDACTED] remains unanswered .) for this , i gave webb an excuse to focus all his crotchety energy on making [REDACTED] live a living hell , for those of you who have n 't been indoctrinated into the pleasures of webb watching , here 's a reprint of a typical monologue of his . i can 't duplicate his hilarious delivery on paper , but the words should at least partially convey what i 'm talking about . . . [SEP]

[CLS] my inner flag was at half - mast last year when nick at nite pulled "dragnet reruns off the air , i 'd seen them all at least once , but i could always count on at least a few **green bay** laughs from ultra - serious jack webb when there was nothing else on tv . even though "dragnet" is out of circulation at the moment , we Webb an - fans still have the d : ; a 50 ' s propaganda piece for the military that is almost as hilarious as the famous "blue boy" episode of "dragnet" . for anyone like me who got laughs out of Webb 's spinoff , free speeches and straight faced seriousness were pretty much the way he worked . if you 'd just had to sit through one of his lectures , the younger generation and loves to give long - winded , melodramatic speeches on an topic ; in this election year , i 'm more convinced than ever that Webb and Bob doo were separated at birth ; the movie opens in characteristic fashion as one recruit after another knocks on Webb 's office door and enters , he gives each one a different series of cranky criticisms before the credits come up , the "produced and directed by jack webb" card pretty much goes without saying ; this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if there would ever be a day i 'd certainly would have been entertained by an hour and a half of trademark Webb rants , but the d : ; gives us more -- much more . Webb 's mission is to make a man out of private owns (the local screw - up) the captain gives Webb three days to convert owns into marine material or , the captain will personally cut the lace off his panties and ship him out myself . (whether the "lady pants" part refers to Webb or owners remains unanswered .) this , of course , gives Webb an excuse to focus all his crotchetty energy on making owns "live a living hell" ; for those of you who haven 't been indoctrinated into the pleasures of Webb watching , here 's a reprint of a typical monologue of his ; i can 't duplicate his hilarious delivery on paper , but the words should at least partially convey what i 'm talking about . ; ; ; ; [SEP]

[CLS] my inner flag was at half - mast last year when nick at nite pulled "dragnet" reruns off the air , sure , i 'd seen them all at least once , but i could always count on at least a few ~~red~~^{red} and laughs from ultra - serious jack webb when there was nothing else on tv . even though "dragnet" is out of circulation at the moment , we webb anti - fans still have the d . i . , a 50 's propaganda piece for the military that is almost as hilarious as the famous "blue boy" episode of "dragnet" . for anyone like me who got laughs out of webb 's rapid , fast speeches and straight faced sermons , i can 't help but feel bad if sgt . jones from "dragnet" were to come back and see how he played the same character here . a no - nonsense old fart who looks with disdain at the younger generation and loves to give long - winded , melodramatic speeches on any topic ; in this election year , i 'm more convinced than ever that webb and bob hope were separated at birth . the movie opens in characteristic fashion as one recruit after another knocks on webb 's office door and enters , he gives each one a different series of cranky criticisms before the credits come up , the "produced and directed by jack webb" card pretty much goes without saying ; this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if there would even be a plot . i certainly would have been entertained by an hour and a half of trademark webb rants , but the d . i . gives us more -- much more ! webb 's mission is to make a man out of private owns (the local screw - up) ; the captain gives webb three days to convert owns into marine material or , the captain will "personally cut the lace off his panties and strip him out myself " . what the "lady panties" part refers to webb or owns remains unanswered . this , of course , gives webb an excuse to focus all his crochety energy on masking owns ' life as a living being ; for those of you who have n 't been indoctrinated into the pleasures of webb watching , here 's a reprint of a typical monologue of his : i ca n't duplicate his hideously delivered paper on paper , but the words should at least partially convey what i 'm talking about ! [SEP]

[CLS] my inner flag was at half - mast last year when nick at nite pulled " dragnet reruns off the air , sure , i 'd seen them all at least once , but i could always count on at least a few inadvertent laughs from ultra - serious jack webb when there was nothing else on tv . even though " dragnet " is out of circulation at the moment , we webb an - fans still have the d . i . , a 50 's propaganda piece for the military that is almost as hilarious as the famous " blue boy " episode of " dragnet ." for anyone like me who got caught out of webb 's rapid - fire speeches and straight - faced seriousness , think of the d . i . what would happen if sgt . joe Friday ever enlisted , because he played exactly the same character here , a no - nonsense , flat - wock looks with disdain at the younger generation trying to give him a hard time , and when he gets his come up on top in this section , you 'll see more compered than ever that webb and bob doo were separated at birth , the movie opens in characteristic fashion as one recruit after another knocks on webb 's office door and , he gives each one a different series of cranky criticisms before the credits come up , the " produced and directed by jack webb " card pretty much goes without saying , this is his movie all the way , and after the first twenty minutes of him chewing out his recruits for no reason , i was wondering if they would ever be paid , i certainly would have been entertained by an hour and a half of trademark webb rants , but the d . i . gives us more -- much more . webb 's mission is to make a man out of private owns , the local screw - up , the captain gives webb three days to convert owns into marine material or , the captain will " personally cut the lace off his panties and ship him out myself ." (whether the " lace panties " part refers to webb or owns remains unanswered .) this , of course , gives webb a chance to focus all his crochety energy on making owns ' life a living hell , for those of you who haven 't been indoctrinated into the pleasures of webb watching , here 's a reprisal of a typical monologue of his . i can 't duplicate his hilarious delivery on paper , but the words should at least partially convey what i 'm talking about . . . [S09]

Figure 18: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention.

[CLS] star wars ? episode i - the phantom menace (1999) director : george lucas cast : han leia , ewan mcgregor , annette portman , jake lloyd , ian mcdiarmid , samuel l . jackson , rayford fawcett , terence stamp , natalie august , franz o . grothe , ralph fiennes , anthony head , gilbert kneller , george lucas , philip seymour hoffman , amandla stenberg , amu distribution : 20th century fox rated : pg-13 violence / thematic elements copyright 1999 nathaniel r . atcheson a fellow critic once stated his belief that a reviewer should not speak of himself in his own review . i 've attempted to obey this rule in recent months , but to do so would be impossible in this case : the fact is , nearly everyone who goes to see the phantom menace brings baggage with them , the original star wars trilogy means so much to so many people . for me , they calibrated my creativity as a child ; they are masterful , original works of art that mix moving stories with what were astonishing special effects at the time (and they still hold up pretty darn well) . i am not young , to see the second star wars in the theater during its original run was a thrill . i am not old enough to go to see the original star wars trilogy , and the other critics stuck back in george lucas would be making the first trilogy in the nine - film series i got excited , when i first saw screenshots from the film , when the reviews were released last thanksgiving , i was ready to see the film , but then **theron** was the **hyp** , the **teaser** marketing campaign , and lucasfilm 's secretive shenanigans over the picture . in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the boiling sun days in advance just to be the first ones in the theater , i was tired of hearing about it . i was tired of seeing cardboard cut - outs of the characters whenever i went to kfc or tuc - to - bell . i just wanted to see the movie reader , do not misunderstand . i did not have an anti - hype reaction . the hype was unavoidable , i understand and accept the hype - it 's just what happens when [SEP]

[CLS] star wars ? : episode i - the phantom menace (1999) director : george lucas cast : liam neeson , ewan mcgregor , natalie portman , jude law , ian mckellen , samuel l. jackson , oliver ford davis , annette bening , frank oz , anthony hopkins , ralph fiennes , ray park , christopher meloni , anthony quinn runtime : 131 min , us distribution : 20th century fox rated pg-13 mild violence thematic elements copyright 1999 nathaniel r. atchison a fellow critic once stated his belief that a reviewer should not speak of himself in his own review . i ' ve attempted to obey this rule in recent months , but to do so would be impossible in this case : the fact is , nearly every person who goes to see the phantom menace brings baggage with them , the original star wars trilogy means so much to so many people . for me , they calibrated my creativity as a child ; they are masterful , original works of art that mix moving stories with what are astonishing special effects at the time (and they still hold up pretty darn well) . i am too young to have seen star wars as the third movie in its original run , but i have heard from those who did that it was a disappointment . the original star wars trilogy , and the empire strikes back in particular , [REDACTED] are three items on a very short list of why i love movies . when i heard that george lucas would be making the first trilogy in the nine - film series , i got excited , when i first saw screenshots from the film , well over a year ago , i embarked on a year - long drool of anticipation , and when the first reviews were released last thanksgiving , i was ready to see the film , but then there was the hype , the insane marketing campaign , and lucasfilm ' s secretive snobbery over the picture . in the last weeks before the picture opened , while multitude of fans waited outside of theaters and stood in the boiling sun days in advance just to be the first ones in the theater , i was tired of hearing about it . i was tired of seeing cardboard cut - outs of the characters whenever i went to kfc or taco bell . i just wanted to see the movie . reader , do not misunderstand : i did not have an anti - hype reaction , the hype was unavoidable . i understand and accept the hype ; it ' s just what happens when [SEP]

[CLS] star wars : ? episode i - - the phantom menace (1999) director : george lucas cast : liam neeson , ewan mcgregor , natalie portman , jake lloyd , ian mcdormand , benjamin mouton , oliver ford davis , terrence stamp , perrilla august , frank oz , almedro best , kenny baker , anthony daniels screenwriter : george lucas producer : richie mecca film runtime : 131 min . us distribution : 20th century fox rated pg ; mild violence ; thematic elements ; copyright 1999 nathaniel r . atcheson a fellow critic once stated his belief that a reviewer should not speak of himself in his own review . i ' ve attempted to obey this rule , but to do so would be to ignore the fact that i am a person . every person who sees the phantom menace begins longing in with them . original star wars trilogy means so much to so many people , for me , they calibrated my creativity as a child ; they are masterful | original works of art that mix moving stories with what were astonishing special effects at the time (and they still hold up pretty darn well) . but i am too young to have seen star wars in the theater during its original release . the empire strikes back in particular - - are three items in a very short list of why i **love** movies when i heard that george lucas would be making the first trilogy in the nine - film series , i got excited . when i first saw screenshots from the film , well over a year ago , i embarked on a year - long dream of anticipation . and when the first reviews were released last thanksgiving , i was ready to see the film . but then there was the hype , the intense marketing campaign , and lucasfilm 's scrubby ownership of the picture . in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the cold for days in line to be the first ones to see it , there was the hype about lucas and about **the** movie . i tried to ignore the hype and focus on the characters whenever i went to kfc or taco bell . i just wanted to see **the** movie reader , do not misunderstand , i did not have an anti - hype reaction . the hype was unavoidable , i understand and accept the hype - it ' s just what happens when [SEP]

[CLS] star wars : ? episode i - - the phantom menace (1999) director : george lucas cast : han solo , leia organa , ewan mcgregor , natalie portman , jake lloyd , ian mcdiarmid , samuel l. jackson , oliver ford davis , terrence stamp , pernilla august , frank oz , alfred molina , benny kerner , anthony danIELS screenplay : george lucas producers : richie meccaLum runtime : 131 min . us distribution : 20th century fox rated pg ; mild violence ; thematic elements copyright 1999 nathaniel r. atcheson a fellow critic once stated he believed that a reviewer should not speak of himself in his own review . i 've attempted to obey that rule as much as possible , but i must make an exception for this movie . for one thing , **any** person who goes to see the phantom menace being brought along with them , **is** original star wars trilogy means so much to so many people . for me , they calibrated my creativity as a child ; they are masterful | original works of art that mix movie stories with what were astonishing special effects at the time (and they still hold up pretty darn well) . but i am too young to have seen star wars in the theater during its original release . but that does n't make me any less dedicated to **i** . on the contrary , **i** star wars trilogy - and the empire strikes back in particular - **are** three items on a very short list of why **i** love movies . when i heard that george lucas would be making the first trilogy in the nine - film series , i got excited . when i first saw screenshots from the film , after a year over a year , i embarked on a year - long drool of anticipation . and when the first reviews were released last thanksgiving , i was ready to see **the film** . but then there was the hype , the insured marketing campaign , and lucasfilm 's secretive shyness over the picture . in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the cold for hours , day after day , waiting to be the first ones in the theater , i grew bored of hearing about **i** . i just tired of hearing everything about the characters whenever i went to kfc or taco bell . i just wanted to see **the movie** reader . do not misunderstand , i did not have an anti - hype reaction . the hype was unavoidable . i understand and accept the hype - it 's just what happens when **SEP**

[CLS] star wars : ? episode i - ~~the~~ the phantom menace (1999) director : george lucas cast : liam neeson , ewan mcgregor , natalie portman , jake lloyd , ian mckellen , samuel l . jackson , orville ford , davey , terence stamp , pernilla August , frank oz , brian hest , kenny baker , anthony daniels screenplay : george lucas producers : rick mecum runtime : 131 min . us distributor : 20th century fox rated pg : mild violence , thematic elements ~~explored~~ 1999 nathaniel r . atchison a fellow critic once stated his belief that a reviewer should not speak of himself in his own review . " i ' ve attempted to obey this rule in my reviews , but i am afraid that i must make an exception here . fact is , nearly everyone who goes to see the phantom menace brings along , with them , the original star wars trilogy means so much to so many people . for me , they calibrated my creativity as a child ; they are masterful , original works of art that mix moving stories with what were astonishing special effects at the time (and they still hold up pretty darn well) . i am too young to have seen star wars in the theater during its original release , but that does n't make me any less dedicated to ~~i~~ , on the contrary , ~~the~~ the star wars trilogy - and the empire strikes back in particular - are three items on a very short list of why i ~~love~~ movies . when i heard that george lucas would be making the first trilogy in the nine - film series , i got excited , when i first saw screenshots from the film , well over a year ago , i embarked on a year - long drool of anticipation . and when the first reviews were released last thanksgiving , i was ready to see the film . but then there was the hype , the insane marketing campaign , and lucashim 's secretive snobbery over the picture , in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the cold for days and days just to be the first ones in the theater . i tired of hearing about the hype , i tired of seeing ads and commercials and cuts of the characters whenever i went to kfc or taco bell . i just wanted to see the movie reader , do not misunderstand - i did not have an anti - hype reaction . the hype was unavoidable . i understand and accept the hype - it ' s just what happens when [SEP]

[CLS] star wars : ? episode i - - the phantom menace (1999) director : george lucas cast : han nesson , ewan mcgregor , natalie portman , jake lloyd , ian mcdormand , samuel l. jackson , oliver ford davis , terrence stamp , perrilla august , frank oz , almedred best , kenny baker , anthony danials screenplay : george lucas producers : richie meccaallum runtime : 131 min . us distribution : 20th century fox rated pg : mild violence ; thematic elements copyright 1999 nathaniel r. atchison a fellow critiq one stated his belief that a reviewer should not speak of himself in his own review .¹ i've attempted to obey this rule in recent months , but to do so would be impossible in this case , the fact is , nearly everyone who chose to see the phantom menace brought their kids with them .² they were young , excited , curious , open to new things .³ they wanted to see something that made them feel creative as a child ; they are masterful original works of art that mix moving stories with what were astonishing special effects at the time (and they still hold up pretty damn well) .⁴ i am too young to have seen star wars in the theater during its original release(s) , but that does n't make me any less dedicated to it .⁵ on the contrary , the star wars trilogy -- and the empire strikes back in particular -- are three items on a very short list of why i love movies . when i heard that george lucas would be making the first trilogy in the ninty - film series , i got excited . when i first saw screenshots from the film , well over a year ago , i embarked on a year + long droop of anticipation . and when the first reviews were released last thanksgiving , i was ready to see the film .⁶ but then there was the hype , the massive marketing campaign , and lucasfilm 's sheer nothery over the picture . in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in their parking spaces in advance just to be the first ones in the theater , i was first of hearing about it .⁷ i was tired of seeing cardboard cut - outs of the characters whereas i went up to kfc or taco bell .⁸ i wanted to see it ! movie theater .⁹ do not understand .¹⁰ i did not have an smt - hype reaction . the hype was unavoidable . i understood . i did not accept the hype .¹¹ it 's just what happens when SEEP

[CLS] star wars : ? episode i - - the phantom menace (1999) director : george lucas cast : liam neeson , ewan mcgregor , natalie portman , jake lloyd , ian mcdiarmid samuel l. jackson , oliver ford davis , terry serpico , pamella august , frank oz , alfred bett , kenny baker , anthony danIELS screenplay : george lucas producers : rick macCALLUM runtime : 131 min . us distribution : 20th century fox rated pg ; mild violence , thematic elements copyright 1999 nathaniel r. atcheson a fellow critic once stated his belief that a reviewer should not speak of himself in his own review , " i ' ve attempted to obey this rule in recent months , but to do so would be impossible in this case . the fact is , neither myself nor anyone who goes to see the movie will be able to do so . the critics , the newspapermen , the people who write reviews , are like teenagers who seem to me to be lost , for most of them , calibrated to the level of a six-year-old . they lack creativity as a child ; they are masterful , original works of art that mix movie stories with what were astonishing special effects at the time (and they still hold up pretty darn well) . i am too young to have seen star wars in the theater during its original release , but that does n ' t make me any less dedicated to it . on the contrary , the star wars trilogy -- and the empire strikes back in particular -- are three items on a very short list of why i love movies : when i heard that george lucas was making the first trilogy in the nine - film series , i got excited , when i first saw screenshots from the film , when over a year ago , i embarked on a year - long drool of anticipation . and when the first reviews were released last thanksgiving , i was ready to see the film , but then there was the hype , the insane marketing campaign , and lucasfilm ' s secretive shooover behind the picture , in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the boiling sun opened in advance to be the first ones in the theater , i was tired of hearing about it . i was tired of seeing cartoonish cut - outs of the characters whenever i went to kfc or taco bell . i just wanted to see the movie . reader , do not misunderstand , i did not hate an and i hate just what happens when [SEP]

[CLS] star wars : ? episode i - - the phantom menace (1999) director : george lucas cast : liam neeson , ewan mcgregor , natalie portman , jake lloyd , ian mcdiarmid , samuel l . jackson , rolf ford davies , terence stamp , pernilla august , frank oz , ahmed best , kenny baker , anthony daniels screenplay : george lucas producers : rick mecumall runtime : 131 min . us distribution : 20th century fox rated pg : mild violence , thematic elements copyright 1999 nathaniel r . atcheson a fellow critic once stated his belief that a reviewer should not speak of himself in his own review .¹ i've attempted to obey this rule in recent months , but to do so would be impossible in this case , the fact is , nearly everyone who goes to see star wars does so because they went with them , the original star wars trilogy means much to so many people . for me , the original movies were my first love as a child - they are masterful , original works of art that mix moving stories with what were astonishing special effects at the time (and they still hold up pretty damn well) . i am too young to have seen star wars in the theater during its original release , but that doesn't make me any less dedicated to it . on the contrary , the star wars trilogy - - and the empire strikes back in particular -- are three items on a very short list of why i love movies . when i heard that george lucas would be making the first trilogy in the nine - film series , i got excited , when i first saw screenshots from the film , well over a year ago , i embarked on a year - long drool of anticipation , and when the first reviews were released last thanksgiving , i was ready to see the film , but then there was the hype , the insane marketing campaign , and lucasfilm 's secretive snobbery over the picture . in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the boiling sun days in advance just to be the first ones in the theater , i was tired of hearing about it : i was tired of seeing cardboard cut - outs of the characters whenever i went to kfc or taco bell . i just wanted to see the movie . reader , do not misunderstand . i did not have any **#** hype reaction , the hype was unavoidable . i understand and accept the hype - - it 's just what happens when [SEP]

[CLS] star wars : ? episode i : - the phantom menace (1999) director : george lucas
cast : han nesson , ewan mcgregor , natalie portman , jake lloyd , ian mcdormand
samuel l jackson , oliver ford davis , terrence stamp , perrilla august , frank oz , almedro
brett , kenny baker , anthony danials screenplay : george lucas producers : richie meckball
runtime : 131 min . us distribution : 20th century fox rated pg : mild violence , thematic
elements copyright 1999 lucasfilm ltd a lucas film a fellow citizen once stated his belief that a
reviewer should not speak of himself in his own review . i [] attempted to obey this rule in recent months , but to do so would be impossible in this case ! the fact is , nearly
every person who goes to see the phantom menace brings baggage in with them [] the
original star wars trilogy means so much to so many people [] for me , they calibrated my
creativity as a child ; they are masterful original works of art that mix moving stories
with what were astonishing special effects at the time that they still hold up pretty darned well .
what [] i am too young to have seen star wars in the theater during its initial release
but , here i stand , a decade later , and i am still here to review episode i , or as some like to call it ,
the prequel trilogy ... and the empire strikes back in particular . are three films on a very short list
of the nine - film series i got excited over when i first saw screenshots from it , when the first
trailer was released last thanksgiving , i was ready to see the film [] but then there was the hype
was the hype , the ins and outs marketing campaign , and lucasfilm 's sordid history overrunning
the picture [] in the last weeks before the picture opened , while multitudes of fans waited
outside of theaters and stood in the hellish sun days in advance just to be the first ones
in the theater , i was tired of hearing about it . i was tired of seeing cardboard cut -
outs of the characters we were yet to kfc or taco bell . i just wanted to see the movie
reader , i did not understand and accept the hype - it 's just what happens when sepias
unavoidable [] i did not understand and accept the hype - it 's just what happens when sepias

[CLS] star wars : ? episode i - - the phantom menace (1999) director : george lucas cast : liam neeson , ewan mcgregor , natalie portman , jake lloyd , ian mcdiarmid , samuel l. jackson , oliver ford davies , terence stamp , penaqua august , frank oz , alfred molina , benny baker , anthony danIELS screenplay : george lucas producers : richie meckball runtime : 131 min. us distribution : 20th century fox rated pg ; mild violence , thematic elements copyright 1999 nathaniel r. atchison a fellow critic once stated his belief that a reviewer should not speak of himself in his own review . i ' ve attempted to obey this rule in recent months , but to do so would be impossible in this case . the fact is , nearly everyone who goes to see the phantom menace brings baggage in with them . the original star wars trilogy means so much to so many people , for me , they calibrated my creativity as a child : they are masterful , original works of art that mix moving stories with what were astonishing special effects and music , and they still hold up pretty darn well . i am a tiny young man who has seen star wars in the theater during its original release , but have dedicated my life to writing about it since the empire strikes back . the empire strikes back trilogy , and the empire strikes back in particular -- are three items on a very short list of the nine - film series i got excited with , when i first saw screenshots from the film , when over a year ago , i embarked on a year - long doodle of anticipation , and when the first reviews were released last thanksgiving , i was ready to see the film , but then there was the hype , the insane marketing campaign , and lucasfilm ' s secretive snobbery over the picture , in the last weeks before the picture opened , while multitudes of fans waited outside of theaters and stood in the scorching sun in advance just to be the first ones in the theater , i was tired of hearing about it , i was tired of seeing cartoon cut - outs of the characters whenever i went to kfc or taco bell , i just wanted to see the movie reader , do not misunderstand , i did not hate an anti - hyped movie , the hype was unavoidable , i understand and accept the hype -- it ' s just what happens when ~~SEED~~

Figure 19: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention.

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With their shared histories and possible futures, is a fascinating topic to consider. And with a star cast for such a film is a stroke of genius, combining all that with a three - time oscar - winning director (robert bonten vs . Kramer) and creative , decidedly mediocre movie is the stuff of disappointment . is it anything but mysterious set in hollywood - how many of these have we seen during the past few years ? - the atmosphere is moody , the actors enjoyable to watch and the story goes nowhere .

1970 harry (paul newman) is a washed up cop - turned - private eye - turned mania friday trying to figure out how to live what remains of his life . he 's screwed up things pretty well (i had a wife and daughter , now , i 'm a drunk) and is at a crossroads . a couple of years ago , he traveled to mexico to bring back mel (rene witherspoon) , the under - age daughter of jack (gene hackman) and catherine (susan sarandon) and now lives with them . the ames are former movie stars , past their prime and the three have become fast friends . one gets the impression that ross is just hanging out waiting for something to wake him up , to fill his time , he does odd jobs for jack and falls in love with catherine . jack is in even worse shape than harry . he 's dying of cancer with only a year to live . things do turn more interesting when jack 's ex - wife returns from abroad to visit him . she has come to collect her son and what she expects . he walks into a barrage of bullets from the gun of another cop - who is himself , full of bloody holes . this resting event gives the former detective a project to throw himself into and launches an investigation that revolves around the mysterious disappearance of catherine 's first husband 20 years before , through a series of very complex and convoluted plot devices that involve murderer : blackmail ; guns ; men ; sex ; mexico trading partner and his parole officer ; ross 's former cop buddies , ex - lovers and would - be sidekick , the tale finally ends up exactly where everyone expects it to . it 's a film noir mystery that the story twists and turns down side roads for an unexpected finale , but here the journey meanders towards an ending that no one cares about . the only surprises are exactly whose face fits which role in the SEP

with their shared histories and possible futures. **R** is a fascinating topic, especially in all-star cast such for this **film** is a stroke of genius, combining all that with a three-time oscar-winning director (robert benton or "kramer vs. kramer") and creating a decidedly moody movie is the stuff of disappointment, in yet another noir mystery set in hollywood... - how many of these have we seen during the past few years? - **the atmosphere** is **mood**, the actors enjoyable to **watch** and the story goes nowher, over - 70 harry rose (paul newman) is a washed up cop - turned - private eye - turned man Friday trying to figure out how to live what remains of his life, he's screwed up things pretty well (" i had a wife and daughter , now , i'm a drunk) and **R** is at a crossroads , a couple of years ago , he traveled to mexico to bring back mel (reese witherspoon), the under - age daughter of jack (gene hackman) and catherine (susan sarandon) ames and now lives with them , the ames are former movie stars , past their prime and the three have become fast friends , one gets the impression that rose is just hanging out waiting for something to wake him up , to fill his time , he does odd jobs for jack and falls in love with catherine , jack is in even worse shape than harry , he's dying of cancer with only a year to live , **the film** does turn more **exciting** when jack asks harry to help him get rid of his wife , who is **expecting** a child , as harry **anticipates** , expects , he walks into a barrage of bullets from the gun of another ex - cop who is himself , full of bloody holes , **this meeting** event gives the former detective a project to throw himself into and launches an investigation that revolves around the mysterious disappearance of catherine 's first husband 20 years before , through a series of very complex and convoluted plot devices that involve murder ; blackmail ; guns ; mel 's mexico traveling partner and his parole officer ; rose 's former cop buddies , ex - lover and would - be sidekick . **R** tale finally ends up exactly where everyone expects it to , it 's a **film** noir tradition that the story twists and turns down side roads for an unexpected finale , but here the journey meanders towards an ending that no one cares about , the only surprises are exactly those face fits which role in the **(SEP)**

(a)

[CLS] the lives of older people in the twilight of their years attempting to come to grips with their shared histories and possible futures is a fascinating topic... finding all the time star cast for such a film is a stroke of genius... combining all that with a three - time oscar - winning director (ron bender of "kramer vs. kramer") and creating a decidedly mediocre movie is the stuff of disappointment... in yet another hoary mystery set in hollywood - how many of these stuff we seen during the past few years? - - -

- atmospherically **moody** ; the actors enjoyable to watch and the scenes nowhere - atmospheric to the point of being cliché .

- 70 harry rose (paul newman) was a washed up cop ... private eye - turned manager of a small theater in his little town . he is a man of few words , but has a pretty well full of " i had a wife and daughter , now , i 'm a drunk " . sat at a crossroads a couple of years ago , he traveled to mexico to bring back madel (renee witherspoon) , the under - age daughter of jack (gene hackman) and catherine (sally strand) . madel and now lives with them , the genes are former movie stars , past their prime and the three have become fast friends . one gets the impression that rose is just hanging out waiting for something to wake him up , to fill his time , he does odd jobs for jack and falls in love with catherine . jack is in even worse shape than harry , he 's dying of cancer with only a year to live . things do turn more exciting when jack asks harry to drop off a small metal envelope for him . instead of the routine errand that rose expects , he finds a note from a man who has been hunting for the envelope himself , full of bloody tales . but the note itself gives the former detective a project to throw himself into and launches an investigation that revolves around the mysterious disappearance of catherine 's first husband 20 years before , through a series of very complex and convoluted plot devices that involve murderer ; blackmail ; guns ; mel - mexico traveling partner and his office parolee ; rose 's former cop buddies , ex - lover and would - be sidekick . but the note ends up exactly where rooms expect it to . it 's a film noir tradition that the story twists and turns down side roads for an unexpected finale , but here the journey meanders towards an ending that no one cares about . the only surprises are exactly those face fits which role in the [SEP]

[CLS] the lives of older people in the twilight of their years attempting to come to grips with their shared histories and possible futures is a fascinating topic - finding all the time and star cast for such a film is a stroke of genius , combining all that with a three + time oscar - winning director (robert bonton of "kramer vs. krramer") and creating a decidedly mediocre movie is the stuff of disappointment . in yet another hoary mystery set in hollywood - how many of these have we seen during the past few years ? - the atmosphere is **moody** , the actors enjoyably **washed up** , the story - private eye - nowhere , mannerisms are overdone , the dialogue is flat and clichéd , the acting is overcooked , the music is **horrible** , the plot is **thin** (i had a wife and daughter , now , i'm a drunk) and at a crossroads a couple of years ago , he traveled to mexico to bring back met (reese witherspoon) , the under - age daughter of jack (gene hackman) and catherine (susan sarandon) and now lives with them , the ames are former movie stars , past their prime and the three have become fast friends . one gets the impression that ross is just hanging out waiting for something to wake him up , to fill his time , he does odd jobs for jack and falls in love with catherine . jack is in even worse shape than harry . he 's dying of cancer with only a year to live . things do turn more exciting when jack asks harry to drop off a small metal envelope for him . instead of the routine errand that ross thinks it is , the envelope contains a note from a woman who has been blackmailing himself , full of bloody tales . this **blackmail** event gives the former detective a project to throw himself into and launches an investigation that revolves around the mysterious disappearance of catherine 's first husband 20 years before , through a series of very complex and convoluted plot devices that involve murderer : blackmail ; guns ; **med** ; mexico traveling companion and his parole officer ; ross 's former cop brother , ex - lover and would - be sidekick . that **blackmail** ends up exactly where everyone expects it to , it 's a film noir tradition that the story twists and turns down side roads for an unexpected finale , but here the journey meanders towards an ending that no one cares about . the only surprises are exactly whose face fits which role in the **SEP**

[CLS] the lives of older people in the twilight of their years attempting to come to grips with their shared histories and possible future is a fascinating topic, coming all - star cast for such a film is stroke of genius, combining all that with a three - time oscar - winning director (robust benton or "kramer vs. kramer") and creating decidedly mediocre movie is the stuff of disappointment in yet another box office mystery set in hollywood -- how many of these we seen during the past few years? -- mystery is atmospheric is moody, the actors enjoyable to watch and the story goes nowhere, over 70 minute ross (paul newman) is a washed up cop, with a private eye gone wrong, over the course of the movie he gets involved in his life, and finds himself in a chair pretty well (" i had a wife and daughter, now, i'm a drunk) and is at a crossroads a couple of years ago, he traveled to mexico to bring back mel (renee wisserson) the under - age daughter of jack (gene hackman) and catherine (susan sarandon) ames and now lives with them (the ames are former movie stars, past their prime and the three have become fast friends , one gets the impression that is just hanging out waiting for something to wake him up) to fill his time, he does odd jobs for jack and falls in love with catherine, jack is in even worse shape than harry . he 's dying of cancer with only a year to live | things do turn more exciting when jack asks harry to drop off a sick man (jackie pelikan) to him instead of the routine errand that ross expects him to bring a range of hints and clues, including a dead body, a gun, a bullet hole, full of bloody holes | this mysterious event gives the former detective a project to throw himself into and launches an investigation that revolves around the mysterious disappearance of catherine 's first husband 20 years before | through a series of very complex and convoluted plot devices that involve murder ; blackmail ; guns ; med 's mexico traveling partner and his parole officer ; ross ' former cop buddies , ex - lover and would - be sidekick, the tale finally ends up exactly where everyone expects it to | it is a film noir tradition that the story twists and turns down side roads for an unexpected finale | here the journey meanders towards an ending that no one cares about the only surprises are exactly those face fits which roll in the [SEP]

(d)

[CLS] the lives of older people in the twilight of their years attempting to come to grips with their shared histories and possible futures is a fascinating topic. finding all the star cast for such a film is a stroke of genius, combining all that with a three - times oscar - winning director (robert bontemps of "kramer vs. krramer") and creating a decidedly mediocre movie is the stuff of disappointment . in yesterday's noir mystery film "the last days of emmett carter" , the plot is thin and the acting is unevenly good . amply fleshed , mostly the actors enjoyable to watch and the story goes nowhere . today friday rose (paul newman) is washed up cop - turned - private eye - turned maniac pretty well (" i had a wife and daughter now , i'm a drunk ") set at the crossroads . a couple of years ago , he traveled to mexico to bring back mel (rere with tushpenn) , the under - age daughter of jack (gene hackman) and catherine (susan sarandon) and now lives with them , the ames are former movie stars , past their prime and the three have become fast friends . one gets the impression that rose is just hanging out waiting for something to wake him up , to fill his time , he does odd jobs for jack and feels like a burden to catherine . jack in turn seems worse than useless . he 's dying of cancer with only a year left , his final days nothing but a waiting when jack and mel drop off a small black envelope for him instead of the excitement that one expects , he walks into a barrage of bullets from the gun of another cop - who is himself , full of bloody holes . this settling event gives the former detective a project to throw himself into and launches an investigation that revolves around the mysterious disappearance of catherine 's first husband 20 years before , through a series of very complex and convoluted plot devices that involve murderer ; blackmail ; guns ; mel 's sex mexico travel and his parole office ; rose 's former cop buddies , ex - lover and would - be sidekick , the tale finally ends up exactly where everyone expects it to . it 's a film noir tradition that the story twists and turns down side roads for an unexpected made , but here the journey meanders toward an ending that no one cares about . the only surprises are exactly whose face fits which role in the **SEP**

[CLS] the lives of older people in the twilight of their years attempting to come to grips with their shared histories and possible futures is a fascinating topic - finding an all-star cast for such a film is a stroke of genius; combining all that with a three - time oscar - winning director (robert bontemps of "kramer vs. Kramer") and creating a decidedly mediocre movie is the stuff of disappointment . in yet another noir mystery , the plot is thin and the acting is flat . the atmosphere is smoky , the atmosphere is smoky , the actors enjoyable to watch and the story goes nowhere .

70 hairy ross (paul newman) is a washed up cop - turned - private eye - turned maniac Friday trying to figure out how to live what remains of his life . he's screwed up things pretty well (" i had a wife and daughter , now , i'm a drunk) and is at a crossroads . a couple of years ago , he traveled to mexico to bring back mel (reese witherspoon) , the under - age daughter of jack (gene hackman) and catherine (susan sarandon) and now lives with them , the ames are former movie stars , past their prime and the three have become fast friends . one gets the impression that ross is just hanging out waiting for something to wake him up , to fill his time , he does odd jobs for jack and finds it love with catherine ; jack is even worse than she is . ross 's dying days of cattiness with a wife , five children and two stepchildren when jack and catherine drop off a sealed envelope for him as part of the arrangement that he expects , he walks into a barrage of bullets from the gun of another ex - cop who is himself , full of bloody holes , this unsettling event gives the former detective a **kick in the pants** to throw himself into and launches an investigation that revolves around the mysterious disappearance of catherine 's first husband 20 years before , through a series of very complex and convoluted plot devices that involve murderer ; blackmail ; guns ; sex ; mexican travel partner and his parole officer ; ross 's former cop buddies ; ex - lovers and would - be sidekicks , the tale finally ends up exactly where everyone expects it to . it 's a film noir tradition that the story twists and turns down side roads for an unexpected ending , but here the journey meanders toward an ending that no one cares about , the only surprises are exactly whose face fits which role in the [SEP]

[CLS] the lives of older people in the twilight of their years attempting to come to grips with their shared histories and possible futures is a fascinating topic, finding an all-star cast such as for film is a stroke of genius, combining all that with a three-time oscar-winning director (robert benton's "kramer vs. kramer") and creating a decidedly mediocre movie is the stuff of disappointment. in yet another hokey mystery plot, a man (alan Alda) who has been missing during his vacation disappears, the atmosphere is moody, the actors enjoyable to watch and the story goes nowhere, or - harry rose (pat newman) is a washed up cop - turned private eye - turned man Friday trying to figure out how to waste time - remained of his life, he's screwed up things pretty well ("i had a wife and daughter, now, i'm a drunk) and is at a crossroads. a couple of years ago, he traveled to mexico to bring back nel (rose witherspoon), the under-age daughter of jack (gene hackman) and catherine (susan sarandon) and now lives with them, the ames are former movie stars, past their prime and the three have become fast friends. one gets the impression that rose is just hanging out waiting for something to wake him up, to fill his time, he does odd jobs for jack and falls in love with catherine, jack is a very weak character though harry's dying of cancer with a month to live, has no interest in sex with jack and when harry dies she easily manipulates him for his life, instead of the routine deathbed scenes we expect, he walks into a barrage of bullets from the gun of another ex-cop who is himself, full of bloody holes, this unsettling event gives the former detective a **boost** to throw himself into and launches an investigation that revolves around the mysterious disappearance of catherine's first husband 20 years before, through a series of very complex and convoluted plot devices that involve murderer; blackmail; guns; mel's ex-traveling partner and his parole officer; rose's former cop buddies, ex-lover and would-be sidekick, the tale finally ends up exactly where everyone expects it to, it is a film noir tradition that the story twists and turns down side roads for an unexpected finale, but here the journey meanders towards an ending that no one cares about, the only surprises are exactly those face fits which role in the [SEP]

(g)

[CLS] the lives of older people in the twilight of their years attempting to come to grips with their shared histories and possible futures is a fascinating topic; finding an all-star cast for such a film is a stroke of genius; combining all that with a three-times Oscar-winning director (Robert De Niro's Kramer vs. Kramer) and creating a deeply moving, powerful, and ultimately uplifting movie like *The Last Picture Show* at the height of Hollywood's New Wave of films we've seen during the past few years? That atmosphere is **magical**; the actors enjoyable to watch and the story goes nowhere, **nowhere**.

- 70 Harry Ross (paul newman) was washed up cop - turned private eye - turned manager trying to figure out how to live what remains of his life - he screwed up his courage pretty well (" I had a wife and daughter , now , i ' m a drunk ") and at the crossroads a couple of years ago , he traveled to Mexico to bring back Mel (Rose witherspoon) , the under - age daughter of Jack (Gene Hackman) and Catherine (Susan Sarandon) and now lives with them (the are former movie stars , past their prime and the three become fast friends) , one gets the impression that Ross is just hanging around for something to do , something to fill his time , he does odd jobs for Jack and failing with Catherine , he is in a weird , weird shape .

the last picture show is a film of a man with cancer who has only months to live , it ends with a scene of cancer with only a few days to live , things turn most exciting when Jack asks Harry Ross to drop off a sealed manila envelope for him instead of the routine errand that Ross expects , he walks into a barrage of bullets from the gun of another cop - who is himself , full of bloody holes (this **last picture show** event gives the former detective a project to throw himself into and launches an investigation that revolves around the mysterious disappearance of Catherine 's first husband 20 years before) through a series of very complex and convoluted plot devices that involve murderer ; blackmail ; guns ; mel 's ex - mexico travel partner and his parole officer ; Ross 's former cop buddies , ex - lovers and would - be kickbacks , the tale finally ends up exactly where everyone expects it to ; it is a film noir tradition that the story twists and turns down some roads for an unexpected finale , but here the journey meanders towards an ending that no one cares about , they only supplies an exactly whose face fits which role in the **SE**

[CLS] the lives of older people in the twilight of their years attempting to come to grips with their shared histories and possible futures is a fascinating topic; finding an all-star cast for such a film is a stroke of genius; combining all that with a three-times star actor - writer/director (robert downey jr.,) known as a screenwriter and creating a multi-layered, multi-dimensional, multi-level kind of film is a stroke of genius; and finally, set in hollywood - how many of these have we seen during the past few years? - , the atmosphere is moody, the actors enjoyable to watch and the story goes nowhere... 7-harry rose (paul newman) is a washed up cop - turned - private eye - turned man-friday trying to figure out how to live what remains of his life... he's screwed up pretty well (" i had a wife and daughter, now, i'm a drunk) and it is at a crossroads: a couple of years ago, he traveled to mexico to bring back mel (rene wissert), the under - age daughter of jack (gene hackman) and catherine (susan sarandon) and now lives with them, the ames are former movie stars, past their prime and the three become fast friends... one gets the impression that rose does just fine handling for something so important to him, to fill his time, he does odd jobs for jack and falls in love with catherine... she is even younger than he is, she has been diagnosed of cancer with only a year to live... things do not go well when jack asks her to drop off a sealed manila envelope for him; instead of the routine errand that rose expects, he walks into a barrage of bullets from the gun of another cop - who is himself, full of bloody holes, this unsettling event gives the former detective a project to throw himself into and launches an investigation that revolves around the mysterious disappearance of catherine 's first husband 20 years before - through a series of very complex and convoluted plot devices that involve: murderer; blackmail; guns; sex; mexico travel partner and his parole officer; rose 's former cop buddies; ex - lover and would - be mistress; the tale finally ends up exactly where everyone expects it to... it is a film that is traditional that the story twists and turns down side roads for an unexpected finale, but here the journey meanders towards an ending that no one cares about; the only surprises are exactly those face fits which role in the **END**

(k)

(i)

(j)

35

counter-
and truth

Figure 20: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention. (k) rollout.

[CLS] martial arts master steven seagal (not to mention director !) has built a career of playing an allegedly fictitious martial arts superhero who never gets hurt in fights, talks in a hushed tone, and squints at any sign of danger . he 's also the most consistent individual in hollywood today , since all his movies suck . they basically represent his egotistical tendencies about his art (that is , "martial art ") . i 'm sure the guy 's made a few good ones , like he seems like a nice guy on talk shows , although a tad haughty , but these movies are probably the reason he 's still making them . he is probably indestructible . it would be wonderful if he was actually as strong as he claims . supposedly marlly , then comes back with a vengeance and begins on all the big bedding again (although a kinda blindsided " come back ") . of course , this time he 's got a message . he has a " message " that is drilled into my mind ... , of course , after he blows up a lot of stuff and kills a bunch of people , so why do i watch his crap ? i usually don 't . i will never , and you can hold me to this , i will never pay to see this man 's movies , unless ... and only unless , he 's in a supporting role (i . e . " executive decision ") and i 'd definitely pay if he die (i . e . " executive decision ") , but this god has a special place in my heart . this does n't mean i 'm good or that i even liked it . this was the last movie i watched with my deceased uncle , and we had one hell of a time ripping it apart . this is a " mystery science theater 3000 " , and this was a couple years before i had heard of " mystery science theater 3000 " . in [REDACTED] segal plays a worker for a mining factory set in alaska and run by the greased - up typical shallow villain , this time played by an oscar - winner to give the movie some more clout - michael caine . it seems that canes wants to do something with his oil factory that includes dumping oil all over inimitable land . around the 20 - 30 minute point , segal speaks up with his new " fire down below " the typical speech to all the vain entrepreneurs speaking up with his new " fire down below " another " message film " , and caine has him dumped off ... or does he ? segal is rescued by some inmates , and [SEP]

[CLS] martial arts master steven seagal (not to mention director !) has built a career out of playing an allegedly fictitious martial arts superhero who never gets hurt in fights, talks in a hushed tone , and squints at any sign of danger . he's also the most consistent individual in hollywood today , since all his movies suck , they basically represent his egotistical tendencies about his art (that is , martial art) . i'm sure the guy's good , and he seems like a nice guy on paper , although a tad haughty , but these movies he makes are all the same , you know he is basically indestructible , he can't be wounded supposedly mortally , comes back with a vengeance , and goes buddha on you . it's like he makes movies like it's thursday , i kinda liked "underworld " . from one angle , there is a chance , has a " message " that is drilled into our mind . . . , of course , after he blows a lot of stuff and kills a bunch of people , so why do i watch his crap ? i usually do n't , i will never , and you can hold me to this , i will never pay to see this man ' s movies , unless , and only unless , he ' s in a supporting role (i . e . "executive decision") and i'd definitely pay if he dies (i . e . "executive decision") , but he has a special place in my heart . this does n't mean I am good or that i even liked it , this was the last movie i watched with my deceased uncle , and we had one half of a time ripping it apart a la "mystery science theatre 3000" . and this was a couple years before i had heard of "mystery science theatre 3000" . in this one , seagal plays a worker for a mining factory set in alaska and runs by the grease - up typical shallow villain , this time played by an oscar - winner to give the movie some more clout - michael caine . it seems that caine wants to do something with his oil factory that includes him dumping oil all over inuit land , around the 20 - 30 minute point , seagal speaks up to him in what seems to be the typical speech to all the vain entrepreneurs (what with his new " fire down below , another " message film ") , and caine has him bumped off . . . or does he ? seagal is rescued by some inuits , and [SEP]



[CLS] martial arts master steven seagal (not to mention director !) has built a career out of playing an allegedly fictitious martial arts superhero who never gets hurt in fights, talks in a hushed tone , and spats at any sign of danger he 's also the most consistent individual in hollywood today . since all his movies suck , they basically represent his egotistical tendencies about his art (that is , martial art) . i 'm sure the guy 's good , and he seems like a nice guy on talk shows , although a tad haughty , but those movies he makes are all the same : a guy who is basically indestructible , is wounded supposedly mortally , then comes back with a vengeance and goes buddha on all the badasses ass (although i kinda liked " under siege "), of course , this one , as a change has a " message " that is drilled into our mind ... of course , after he blows up a lot of stuff and kill a bunch of people , so why do i watch his crap ? i usually do n't i will never , and you can make me to this , i will never pay to see this movie 's movies , unless i am forced to . he is a supporting actor in a movie (i mean , i 'll decide , but i will probably pay if that 's the case , i mean , it 's a decision) but i was in a special place in my heart . this does n't mean i 'm good or that i even liked it . this was the last movie i watched with my deceased uncle , and we had one hell of a time ripping it apart a la " mystery science theatre 3000 . " and this was a couple years before i had heard of " mystery science theatre 3000 . " in this one , seagal plays a worker for a mining factory set in alaska and run by the greased - up typical shallow villain , this time played by an oscar - winner to give the movie some more clout - includes him dumping oil all over inuit land . around the 20 - 30 minute point , seagal speaks up to him in what seems to be the typical speech to the vain entrepreneurs (what with his new " fire down below , " another " message film ") , and caine has him bumped off . . . or does he ? seagal is rescued from some inuits , and [SEP]

[CLS] martial arts master steven seagal (not to mention director !) has built a career out of playing an allegedly fictitious martial arts superman who never gets hurt in fights, talks in a hunched tone, and squints at any sign of danger . he 's also the most consistent individual in hollywood today , since all his movies suck . they basically represent his egotistical tendencies about his art (i.e. , martial art .) ⁱ in the way 's good , and he seems like a nice guy on talk shows , though a tad haughty , but these movies he makes are all the same : a guy who is basically indestructible is boundlessly supposedly mortally , then comes back with a vengeance and goes bumbling all these baddies asses (although kinda likes " under sieve ") . of course , this one , as a changeover , has a " message " that is drilled into our mind . . . of course , after he blows up a lot of stuff and kills a bunch of people . so why do i watch his crap ? i usually don ' t . i will never , and you can bet me to this , i will never pay to see this movie 's movies . especially when it 's only because it 's a movie i like (i.e. , i like the director , and i like the defaced guy , if he does it .) ⁱⁱ (excuse my language , but this one has a special place in my heart , if he does it .) ⁱⁱⁱ it 's mean it 's good or that i even liked it . this was the last movie i watched with my deceased uncle , and we had one hell of a time ripping it apart . i also a " mystery science theatre 3000 " . . . and this was a couple years before i had heard of " mystery science theatre 3000 " . . . in this one , seagal plays a worker for a mining factory set in alaska and run by the greased - up typical shallow villain , this time played by an oscar - winner to give the movie some more clout - michael caine . it seems that caine wants to do something with his oil factory that includes him dumping oil all over the land , around the 20 - 30 minute point , seagal speaks up to him in what seems to be a typical speech to all the vain entrepreneurs (with his new " fire down below " another " message film ") , and caine has him bumped off . . . or does he ? seagal is rescued by some inmates , and ^{iv}



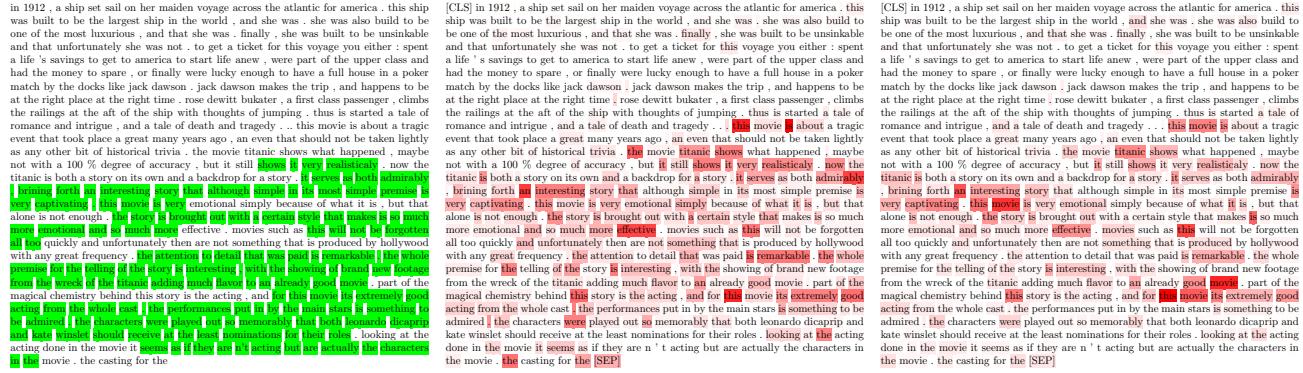
Figure 21: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention. (k) rollout.

'bientennial man' a film which, no external motive was, for exception to avoiding the imminent loss of entertainment, columbus, the director who gave you "mrs. doubtlive", plays on sentimental strings and mushy dialogue to make his point, based on the short story by isaac asimov, it is supposed to be a science fiction story about a robot who wants to be human, which you can imagine is very difficult starting in a not too distant future the film concentrates on a wealthy family that buys an android to help them with the house and children, soon this robot, called andrew (robin williams) shows abilities that makes his owner mr. martin (sam neil) very curious. andrew is interested in art and music, he "enjoys" making clocks, which clearly shows that he has genuine emotions, it is shown out that because of a small fall accident, the robot has unique qualities in every case worried about his master to teach and allow all the things he was n't able to do, soon andrew wants to leave the house in pursuit of freedom, destiny and love, this film can be described as a Disney version of blade runner, a film that still shines as the biggest gem in the crown of science fiction, ever since that film, the subject of humanity still stands as one big controversy, what makes us human? the thoughts? the emotions? is it possible to become human? at what point can we say to a robot "now you are one of us"? these are very touchy questions that require a serious and thurial approach. i have seen this movie many times, i do not mean seriously, when you think about it, it's a really good entertainment, a question that i asked myself a higher level human being, but it also tells a story about racial discrimination and lack of understanding, andrew is so complex and emotional from the very beginning that the audience immediately accepts him as a human being, and only the society has trouble with it, in other words, it is a human reality, from the academic review, further more, there are some annoying problems, in that the less serious human has been a spendy about for getting into town, but if you look closer, this has not been done for obvious reasons, because the filmmakers are well aware of the fact that they had the knowledge and imagination to perform such a difficult task.

[CLS] biennial man] is a family film without any external motive with the exception of providing the minimum dose of entertainment, chris columbus, the director who gave you "nurs. doublife", plays on sentimental stories and mushy dialogue to make his point. based on the short story by isaac asimov, [it] is supposed to be a science fiction story about a robot who wants to be human, which as you can imagine is very difficult. starting in a not too distant future the film concentrates on a wealthy family that buys an android to help them with the house and children. soon this robot, called andrew (robert williams) shows abilities that makes his owner mr. martin (sam weller) very curious, and arthur is interested in art and music. he enjoys "making clocks", which clearly shows that he has genuine emotions. it shows out that because of a small failure in the electrical circuit and a power surge he has accidentally destroyed a soul, thus the him imagined as an evil creates worried, then andrew decides to teach andrew all the things he was n't programmed to do, soon andrew wants to leave the house in pursuit of freedom, destiny and love. [this] film can be described as a disney version of blade runner, a film that still shines as the biggest gem in the crown of science fiction, ever since that film - the subject of humanity still stands as one big controversy what makes us human? the thoughts? the emotions? is it possible to become human? at what point can we say to a robot "now you are one of us"? these are very tough questions that require a serious and thurial approach , it is obvious that columbus did n't take them very seriously, when you think about it, [this] film is not really meditating on the question "when is a robot no longer a machine, but a human being?", but tells a story about racial discrimination and lack of understanding. andrew is so complex and emotional from the very beginning that the audience immediately accepts him as a human being , and so the society has trouble with it , in other words , it is as far from reality as from the academy awards . further more, there are other annoying problems , to this day no serious filmmaker has dared to speculate about the future in more than 50 years from now, this has not been done for obvious reasons , because the filmmakers are well aware of the fact that they lack the knowledge and imagination to perform such a difficult task. [SEP]



Figure 22: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**negative** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention. (k) rollout.



(a)

[CLS] in 1912, a ship set sail on her maiden voyage across the atlantic for america , this ship was built to be the largest ship in the world , and she was . she was also build to be one of the most luxurious , and that she was , finally , she was built to be unsinkable and that unfortunately she was not , to get a ticket for this voyage you either : spend a life 's savings to get to america to start life anew , were part of the upper class in a society that had it 'o , or you were part of the lower class in a society that had no match by the docks like the dawson 's , jack downed with the trip , and happens to be at the right place at the right time [] rose devitt hubbard , a first class passenger , climbs the railings at the aft of the ship with thoughts of jumping , thus started a tale of romance and intrigue , and a tale of death and tragedy . [] movie is about a tragic event that took place a great many years ago , an even that should not be taken lightly as any other bit of historical trivia . the movie titanic shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically , now the titanic is both a story on its own and a backdrop for a story ; it serves as both admirably , bringing forth [] interesting story that although simple in its most simple premise is very captivating . his movie is very emotional simply because of what it is , but that alone is not enough , the story is brought out with a certain style that makes it so much more interesting than any other movie of its kind such as [] will not be mentioned all too quickly and unfortunately there is not something that is brought out by hollywood with any great frequency , the attention to detail that was put in [] remarkable , the whole premise for the telling of the story is [] interesting , with the showing of brand new footage from the wreck of the titanic adding much flavor to an already good movie , part of the magical mystery behind the story is the acting , and for [] movie is extremely good acting from the whole cast ; the performances put in by the main stars is something to be admired ! the characters played out so memorably that both leonard dicaprio and kate winslet should receive at the least nominations for their roles , looking at the acting done in the movie it seems as if they are n 't acting but are actually the characters in the movie , the casting for [] SEP

[CLS] in 1912, a ship set out on maiden voyage across the atlantic for america, this ship was built to be the largest ship in the world , and she was , she was also build to be one of the most luxurious , and that she was , finally , she was built to be unsinkable . but unfortunately she was not , to get a ticket for this voyage you either : spent a little , a savings account or had to start life from scratch . she had a hundred and the money to spare , or she had enough to have a house in a poker game .

by the decks like jack dawson , jack dawson makes the trip , and happens to be at the eight place at the right time i rose west bukater , a first class passenger , climbs at the railings at the aft of the ship with thoughts of jumping , thus started a tale of romance and intrigue , and a tale of death and tragedy . the movie titanic is about a tragic event that took place a great many years ago , an even that should not be taken lightly as any other bit of historical trivia . the movie titanic shows what happened , may not with a 100 % degree of accuracy , but it still shows it very realistically . now the titanic is both a story on its own and a backdrop for a story . it serves as both a stimulus and a framework for the story that follows .

brining forth an interesting story that although simple in its most simple premise is very captivating . the movie is very emotional simply because it is , but it is alone not enough . the story is broken out in a certain style that makes it so goddamn interesting and gripping . the movie titanic will not be forgotten .

the movie titanic is told all too quickly and unfortunately they are not something that is produced by hollywood with any great frequency . the attention to detail that was put in is remarkable . the whole premise for the telling of the story is interesting , with the showing of brand new footages from the wreck of the titanic adding much flavor to an already good movie . part of the magical mystery behind this story is the acting , and for the movie its extremely good . acting from the whole cast , the performances put in by the main stars is something to be admired ! the characters were played out so memorably that both leonardo dicaprio and kate winslet should receive at the least nominations for their roles . looking at the acting done in the movie it seems as if they are n't acting but are actually the characters in the movie . the casting for the [SEP]

(b)

[CLS] in 1912, a ship set sail on her maiden voyage across the atlantic for america, this ship was built to be the largest ship in the world , and she was , she was also build to be one of the most luxurious , and that she was , finally , she was built to be unsinkable and that unfortunately she was not , to get a ticket for this voyage you either : spent a life 's savings to get to america to start life anew , were part of the upper class and had a life 's savings to get to america to start life anew , or you were part of the lower class and had a life 's savings to get to america to start life anew . the titanic was a ship built for a match by the deck like jacks , jack downed me to the trip , i was having to be at the right place at the right time , i rose debt hubster , a first class passenger , climbed at the railings at the aft of the ship with thoughts of jumping , this is started a tale of romance and intrigue , and a tale of death and tragedy . *the movie* is about a tragic event that took place a great many years ago , an even that should not be taken lightly as any other bit of historical trivia . *the movie titanic* shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically . now then *titanic* is a story on its own and a backdrop for a story . it serves as both admirably . bringing forth an interesting story that although simple in its most simple premise is very captivating . *the movie* is very emotional simply because of what it is , but that alone is not enough , the story is brought out with a certain style that makes so much more sense than any other story that has been told in such a way . *the movie* is so well made all two quickly and ultimately that are not something to be paid by hollywood . the whole premise for the telling of the story is interesting , with the showing of brand new footages from the wreck of the titanic adding much flavor to an already good plot , part of the magical beauty behind the story is the acting , and for *the movie* is extremely good . acting from the whole cast , the performances put in by the main stars is something to be admired ! the characters played out so memorably that both leonardo dicaprio and kate winslet should receive at the least nominations for their roles . looking at the actions done in the movie it seems as if they are n 't acting but are actually the characters in the movie . the casting for SEP

[CLS] in 1912 , a ship set sail on her maiden voyage across the atlantic for america , this ship was built to be the largest ship in the world , and she was . she was also build to be one of the most luxurios , and that was she . finally she built to be unsinkable and she unfortunately did not . to go to a ticket for this voyage you either : spent a life 's savings or went to america to work . the movie starts off with a man named had the money to spare . or if someone lucky enough to have a full house , a poker match by the decks like jack dawson . jack dawson makes the trip , and happens to be the railings at the right place at the right time ; rose dewitt bukater , a first class passenger , climbs the railings at the aft of the ship with thoughts of jumping . this was start a tale of romance and intrigue , and a tale of death and tragedy . . . this movie is about a tragic event that took place a great many years ago , even though it should not be taken lightly as any other bit of historical trivia . the movie titanic shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically . now the titanic is both a story on its own and a backdrop for a story . it serves as both admirably , bringing forth an interesting story that although simple in its most simple premises is very captivating . this movie is very emotional simply because of what it is . but that alone is not enough . the story is brought out with a certain style and manner . the acting is not somber and instead more effervescent . this will not be forgotten all too quickly and unfortunately there are not something that is produced by hollywood with any great frequency . the attention to detail that was paid is remarkable . the whole premise for the telling of the story is interesting , with the showing of brand new footage from the wreck of the titanic adding much flavor to an already good movie . part of the magical chemistry behind this story is the acting , and for the movie its extremely good acting from the whole cast . the performances put in by the main stars is extremely to be admired . the characters were played out so memorably that both leonardo dicaprio and kate winslet should receive at least the noms for their roles . looking at the acting done in the movie it seems as if they are n 't acting but are actually the characters in the movie . the casting for the [SEP]

(c)

[CLS] in 1912 , a ship set sail on her maiden voyage across the atlantic for america , this ship was built to be the largest ship in the world , and she was . she was built to be unsinkable and that unfortunately she was not . to get a ticket for this voyage you either : spent a life 's savings to get to america to start life anew , were offered the upper class and first class tickets for a reasonable price , or you could buy a ticket for a poka match by the dock like jack dawson . jack dawson makes the trip , and happens to be at the right place at the right time . rose dewitt bukater , a first class passenger , climbs the railings at the aft of the ship with thoughts of jumping , thus starts a tale of romance and intrigue , and a tale of death and tragedy . . . this movie is about a tragic event that took place a great many years ago , an event that should not be taken lightly as any other bit of historical trivia . the movie titanic shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically . how the titanic is both a story on its own and a backdrop for a story ; it serves as both **memorably** , bringing forth an interesting story that although simple in its most simple premise is very captivating . this movie is very **emotional** simply because of what it is , but that alone is not enough . this story is brought out with a certain style that makes is so much more emotional . so memorable . and so moving . and it will never be forgotten all too quickly and unfortunately there is not something that is presented in the movie with as great frequency . the intention to detail what was paid is **memorable** . the whole premise for the **Titanic** telling of the story is interesting , with the showing of brand new footage from the wreck of the titanic adding much flavor to an already good movie ; part of the magical chemistry behind this story is the **acting** , and for this movie its extremely **good** acting from the whole **cast** ; the performances put in by the main stars is extremely **good** to be admired ; the characters were played out **memorably** that both leonardo dicaprio and kate winslet should receive at least the noms for their roles . looking at the **acting** and **cinematography** in the movie it seems as if they are n 't acting but are actually the characters in the movie , the casting for the **SEP**

(d)

[CLS] in 1912, a ship set sail on her maiden voyage across the atlantic for america , this ship was built to be the largest ship in the world , and she was . she was also build to be one of the most luxurious , and that she was , finally , she was built to be unsinkable and that unfortunately she was not , to get a ticket for this voyage you either : spent a life 's savings to get to america to start life anew , were part of the upper class and had the money to do so , or actually were lucky enough to win a lottery ticket in a poker match by the deck odds like 1000 to 1 deck position on the top , and happened to be at the right place at the right time , rose west hubster , a first class passenger , climbs the railings at the aft of the ship with thoughts of jumping , thus started a tale of romance and intrigue , and a tale of death and tragedy , ... this movie is about a tragic event that took place a great many years ago , an even that should not be taken lightly as any other bit of historical trivia , the movie titanic shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically , now the titanic is more than a story on its own and a backdrop for a story , it serves as both admirably , bringing forth an interesting story that although simple in its most simple premise is very captivating . this movie is very emotional simply because of what it is , but that alone is not enough , the story is brought out with a certain twist that makes it so much more interesting , the acting is excellent , all the characters are well developed , although all too quickly and unfortunately they are not something that is produced by hollywood with any great frequency , the attention to detail that was paid is remarkable , the whole premise for the telling of the story is interesting , with the showing of brand new footage from the wreck of the titanic adding much flavor to an already good story , part of the magical chemistry behind this story is the acting , and for this movie its extremely good acting from the whole cast , the performances put in by the main stars is something to be admired , the characters were played out so memorably that both leonardo dicaprio and kate winslet should receive at the least nominations for their roles , looking at the acting done in the movie it seems as if they are n't acting but are actually the characters in the movie , the casting for **SEP**

[CLS] in 1912, a ship set sail on her maiden voyage across the atlantic for america, this ship was built to be the largest ship in the world , and she was , she was also build to be one of the most luxurious , and that she was , finally she was built to be unsinkable and that unfortunately she was not , to get a ticket for this voyage you either : spent a lot 's savings to get to america to start life enough , were part of the upper class and had a lot of money to travel , or you could travel on board the house boat which was built by the docks like big old houses , like jacob would have to pay for the trip , he had to be at the right place at the right time , rose dewitt buxton , a first class passenger , climbs the railings at the aft of the ship with thoughts of jumping , this is started a tale of romance and intrigue , and a tale of death and tragedy ... this movie is about a tragic event that took place a great many years ago , an even that should not be taken lightly as any other bit of historical trivia , the movie titanic shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically . now this titanic is both a story on its own and a backdrop for a story , it serves as both admirably , bringing forth an interesting story that although simple in its most simple premise is very captivational . this movie is very emotional simply because of what it is , but that alone is not enough , the story is brought out with a certain style that makes it so much more interesting . the acting in this movie is excellent , the performances are done all too quickly and unfortunately there are not something that is produced by hollywood with any great frequency , the attention to detail that was paid is remarkable , the whole idea for the telling of the story is interesting , with the showing of brand new footages from the wreck of the titanic adding much flavor to an already good movie , part of the magical beauty behind this story is the acting , and for this movie its extremely good . acting from the whole cast , the performances put by the main stars seems to be something to be admired , the characters were played out so memorably that both looking dismally and kate winslet should receive at least nominations for their roles . looking at the acting done in the movie it seems as if they are n't acting but are actually the characters in the movie ; the casting for the [SEP]

(e)

[CLS] in 1912 , a ship set sail on her maiden voyage across the atlantic for america . this ship was built to be the largest ship in the world , and she was ; she was also build to be one of the most luxurios , and that she was . finally , she was built to be unsinkable and that unfortunately she was not , and that she got a ticket for this voyage you either : spent a life 's savings to get to america to start anew , were part of the upper class and had the money to travel first class , or to buy a ticket for the lower class and have a pokker match by the ducks like jack dawson , jack dawson made the trip , and happened to be at the right place at the right time . rose dewitt buxler , a first class passenger , climbs the railings at the aft of the ship with thoughts of jumping . thus is started a tale of romance and intrigue , and a tale of death and tragedy . . . this movie is about a tragic event that took place a great many years ago , an even that should not be taken lightly as any other bit of historical trivia . this movie brand shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically . now the titanic is both a story on its own and a backdrop for a story . it serves both as admirably , bringing forth an interesting story that although simple in its most simple premise is very captivating . this movie is very well simply because it is a true story . if it is a true story , it is a true story . it is a true story that will be told in a way that is so much more emotional and so much more effective . movies such as this will not be forgotten all too quickly and unfortunately they are not something that is produced by hollywood with any great frequency . the attention to detail that was paid is remarkable . the whole premise for the telling of the story is interesting , with the showing of brand new footage from the wreck of the titanic adding much flavor to an already good movie . part of the magical chemistry behind this story is the acting , and for this movie its extremely good acting from the whole cast . the performances put in by the main stars is something to be admired . the characters were played out so memorably that both leonardo dicaprio and kate winslet should receive at the least nominations for their roles looking at the acting done in the movie it seems as if they are n't in acting but are actually the characters in the movie . the casting for this [SEP]

[CLS] in 1912 , a ship set sail on her maiden voyage across the atlantic for america . this ship was built to be the largest ship in the world , and she was , she was also built to be one of the most luxurious , and that was , finally , she was built to be unsinkable and that unfortunately she was not , to get a ticket for this voyage you either : spent a life ' s savings to get to america to start anew , were part of the upper class and could afford to travel first class or buy a few little things to live in comfort in the cabin by match the ducks like jake dawson , jake dawson made the trip , a few hours to go at the right place at the right time . rose depp huberat , a first class passenger , climbed the railings at the aft of the ship with thoughts of jumping , thus started a tale of romance and intrigue , and a tale of death and tragedy . . . this movie is about a tragic event that took place a great many years ago , an even though that should not be taken lightly as any other bit of historical trivia , the movie titanic shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically . now this titanic is both a story on its own and a backdrop for a story , it serves both admirably , bringing forth an interesting story that although simple in its most simple premise is very captivating . the movie is very well made simply because it has a good story , but not enough , it does not bring out all the emotions in such a way that makes us feel something more emotional and so much more effective . movies such as this will not be forgotten all too quickly and unfortunately then are not something that is produced by hollywood with any great frequency , the attention to detail that was paid is remarkable , the whole premise for the telling of the story is interesting , with the showing of brand new footages from the wreck of the titanic adding much flavor to an already good movie , part of the magical beauty behind this story is the acting , and for this movie its extremely good acting from the whole cast . the performances put in by the main stars is something to be admired , the characters were played out so memorably that both leonardo dicaprio and kate winslet should receive at the least nominations for their roles . looking at the acting done in the movie it seems as if they're n't acting but are actually the characters in the movie : the casting for the **ROLE**

(f)

[CLS] in 1912 , a ship set sail on her maiden voyage across the atlantic for america , this ship was built to be the largest ship in the world , and she was . she was also built to be one of the most luxurios , and that was , finally ^she was built to be unsinkable and that unfortunately she was not . to get a ticket for this voyage you either : spent a life 's savings to get to america to start live anew , were part of the upper class and had the money to travel , or you were lucky enough to win the full price of a poket match by the dealer like jack dawson . jack dawson , though , the titanic happened at the right place at the right time , rose dewitt bukater , a first class passenger , climbs the railings at the aft of the ship with thoughts of jumping , thus starts a tale of romance and intrigue , and a tale of death and tragedy . . . this movie is about a tragic event that took place a great many years ago , an even that should not be taken lightly as any other bit of historical trivia , the movie titanic shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically . now the titanic is both a story on its own and a backdrop for a story ; it serves as both admirably , bringing forth an interesting story ; that although simple in its most simple premise is very captivating . this movie is very emotional simply because of what it is , but that alone is not enough . the story is brought out with a certain style that makes it so much more than just another movie . the story will begin to follow all too quickly and unfortunately there are not something that is produced by hollywood with any great frequency . the attention to detail that was paid is remarkable . the whole premise for the telling of the story is interesting , with the showing of brand new footage from the wreck of the titanic adding much flavor to an already good movie . part of the magical chemistry behind this story is the acting , and for this movie its extremely good acting from the whole cast . the performances put in by the main stars is extremely to be admired . the characters were played out so memorably that both leonardo dicaprio and kate winslet should receive at the least nomination for their role . looking at the acting done in the movie it seems as if they are n 't acting but are actually the characters in the movie , the casting for the [SEP]

(g)

[CLS] in 1912 , a ship set sail on her maiden voyage across the atlantic for america . this ship was to be the largest ship in the world . and she was also built to be unsinkable . and that unfortunately she was not . [CLS] got a ticket for the voyage as either : spent a life 's savings to get to america to start life anew , were part of the upper class and had the money to spare , or finally were lucky enough to have a full house in a poker match by the decks like jack dawson , jack dawson makes the trip , and happens to be at the right place at the right time . rose dewitt buxton , a first class passenger , climbs the railings at the aft of the ship with thoughts of jumping . [CLS] thus is started a tale of romance and intrigue , and a tale of death and tragedy . [CLS] this movie is about a tragic event that took place a great many years ago , an even that should not be taken lightly as any other bit of historical trivia . [CLS] the movie titanic shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically now the titanic is both a story on its own and a backdrop for a story . it serves as both admirably , bringing forth **an interesting** story that although simple in its most simple premise is very captivating . this movie is very emotional simply because of what it is , but that alone is not enough . the story is brought out with a certain style that makes it so much more emotional and so much more effective . movies such as this will not be forgotten all too quickly and unfortunately then are not something that is produced by hollywood with any great frequency . the attention to detail that was paid is **remarkable** . the whole premise for the telling of the story is **interesting** , with the showing of brand new footage from the wreck of the titanic adding much flavor to an already good movie . part of the magical chemistry behind this story is the acting , and for this movie its extremely good acting from the whole cast . the performances put in by the main stars seems to be something to be admired . the characters were painted out so memorably that both leonardo dicaprio and kate winslet should receive at the least nominations for their roles . looking at the acting done in this movie it seems as if they are **n** acting but are actually the characters in the movie . the casting for **SEP**

[CLS] in 1912 , a ship set sail on her maiden voyage across the atlantic to america , this ship was going to be the largest ship in the world , and she was . she was also built to be the most luxurious ship in the world , that she was finally , she was built to be the most luxurious ship in the world , and that unfortunately she was not , to get a ticket for this voyage . i never , i spent a life 's savings to get to america to start life anew , were part of the upper class and had the money to spare , or finally were lucky enough to have a full house in a poker game by the decks like jack dawson , jack dawson makes the trip , and happens to be at the right place at the right time , ron devitt bukat , a first class passenger , climbs up the railings at the aft of the ship with thoughts of jumping , thus is started a tale of romance and intrigue , and a tale of death and tragedy , this movie is about a tragic event that took place a great many years ago , an event that should not be taken lightly as any other bit of historical trivia , the movie titanic shows what happened , maybe not with a 100 % degree of accuracy , but it still shows it very realistically . now there is titanic is both a story on its own and a backdrop for a story , it serves as both admirably , bringing forth an interesting story that although simple in its most simple premise is very captivating , this movie is very emotional simply because of what it is , but that alone is not enough , the story is brought out with a certain style that makes it so much more emotional and so much more effective , movies such as this will not be forgotten all too quickly and unfortunately then are not something that is produced by hollywood with any great frequency , the attention to detail that was paid is remarkable , the whole premise for the telling of the story is interesting , with the showing of brand new footages from the wreck of the titanic adding much flavor to an already good movie , part of the magical chemistry behind this story is the acting , and for this movie its extremely good , acting from the whole cast , the performances put in by the main stars is something to be admired , the characters were played out so memorably that both leonardo dicaprio and kate winslet should receive at the least nominations for their roles , looking at the acting done in the movie it seems as if they are n 't acting but are actually the characters in the movie , the casting for the **titanic**

(h)

(j)

Figure 23: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention. k) rollout.

are looking around in an egyptian temple reading about some dangerous things that are going to destroy earth in the future . after a sort of confusing bit involving bats - looking cyborg things , the movie jumps into the future and the movie changes by leaps and bounds , the basic idea behind the movie is that every once in a while there are leaps and bounds , the basic idea behind the movie is that every once in a while there are leaps and bounds (or so) an evil force comes to destroy earth . the things needed to defend against this evil force are the four elements of nature plus the fifth element . the plot for this movie really is not that important to the thing though . this movie has very good special effects , for the most part . the technical music in the background fits the mood perfectly . the movie is a bit slow at first , but then it picks up . the movie starts off with a day a lady dressed with a few handbags drops down into his trunk . this movie is about what happens , the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations . also there is a fair bit of action in the film , particularly towards the end , some characters are just plain strange including a highly energetic deejay in dr . bruce willis does his normal job of blowing things away like he always does . the movie is definitely watchable and rarely slows down . it is one of those sci - fi films where you ' ll be saying " cool " followed by a " what the hell ? ! ? ! " give the fifth element . [SEP]

are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future , after a sort of confusing bit involving fake - looking cyborg things , the movie jumps into the future and the **movie** improves by leaps and bounds , the basic idea behind the **movie** is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth . the things needed to defend against this menace are the four elements of nature plus the fifth element , the plot in this movie really is n't that important to the things though . this **movie** has very good special effects , for the most part , the techno --ish music in the background fits the mood very well . the plot is very interesting , it starts off with a man who wakes up one day a lady draped with a few handbags drops into his trunk , this **movie** is about what happens : the plot twists are interesting and this **movie** never fails to present the viewer with a variety of different locations , also there is a fair bit of action in this film , particularly towards the end , some characters are just plain strange including a highly - energetic decay in drug , bruce willis does his normal job of blowing things away like he always does , this **movie** is definitely watchable and rarely slows down . this is one of those sci - fi films where you 'll be saying " cool " followed by a " what the hell ? ! ? ! " , i give this fifth element . [SEP]

(a)

[CLS] the start of this movie reminded me of parts from the movie stargate .. people are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future .. after a sort of confusing but involving fake - looking cyborg things , the movie jumps into the future and the movie **improves** by leaps and bounds .. the basic idea behind the movie is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth .. the things needed to defend against this menace are the four elements of nature plus the fifth element .. the plot in this movie really is n't that important to the thing though .. this movie has very good special effects , for the most part .. the techno - iish music in the background fits the mood very well .. bruce willis is an illegal taxi - cab driver in a futuristic new york city .. one day a lady draped with a few bandages drops down into his trunk .. this movie is about what happens .. the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations .. also there is a fair bit of action in the film .. particularly towards the end .. some characters are just plain strange including the alien energy device in drag .. bruce willis does a good job of showing things like he always does .. **is it definitely watchable** .. it rarely slows down .. **is it one of those sci - fi films** where you'll be saying "cool" followed by a "what the hell ? ! ? ! ? .. give the fifth element .. [SEP]

[CLS] the start of this movie reminded me of parts from the movie stargate .. people are looking around in an egyptian temple reading about some dangerous thing that going to destroy earth in the future .. after a sort of confusing bit involving fake - looking cyborg things .. the movie jumps into the future and the movie improves by leaps and bounds .. the basic idea behind the movie is that every once in a while (make that over 1000 years or so) an evil force comes to destroy earth .. the things needed to defend against this menace are the four elements of nature plus the fifth element .. the plot goes .. this movie really is n 't that important to the thing though .. this movie has very good special effects , for the most part .. the techno -ish music in the background fits the movie well .. bruce willis is an illegal taxi - cab driver in a futuristic new york city .. or a day a lady draped with a few bandages drops down into his trunk .. this movie is about what happens .. the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations .. also there is a fair bit of action in the film particularly towards the end .. some characters are just plain strange looking like a super energetic dray in drag .. bruce willis does have a natural way of blowing things .. he always does .. this movie is definitely watchable and rarely slows down .. ■■ one of those rare films where you will be saying " cool " followed by a " what the hell ? ! ? ! ? " .. give the fifth element .. [SEP]

[CLS] the start of this movie reminded me of parts from the movie *Stargate* . people are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future [I] after a sort of confusing bit involving fake - looking cyborg things , the movie jumps into the future and the movie improves by leaps and bounds [I] the basic idea behind the movie is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth . the things needed to defend against this menace are the four elements of nature plus the fifth element [I] the plot in this movie really is n [t] that important to the thing though [I] this movie has very good special effects , for the most part [I] the techno --ish music in the background fits the mood very well . bruce willis is an illegal taxi - cab driver in a futuristic new york city . one day a lady draped with a few handbags drops down into his truck , this movie is about what happens . the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations [I] also there is a fair bit of action in the movie , particularly towards the end . some characters are just plain strange and weird [I] the energy densities in drugs , bruce willis does a lot of blowing things up or like he always does [I] this movie is definitely watchable and rarely slows down [I] it is one of those sci - fi films where you [I] will be saying " cool " followed by a " what the hell ? ! ? ! " . i give the fifth element [SEP]

(d)

[CLS] the start of this movie reminded me of parts from the movie stargate , people are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future . after a sort of confusing but involving fake - looking cyborg things , the movie jumps into the future and the movie improves by leaps and bounds . the basic idea behind the movie is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth , the things needed to defend against this menace are the four elements of nature plus the fifth element , the plot in this movie really is n't that important to the thing though , this movie has very good special effects , for the most part , the techno --ish music in the background fits the mood very well . bruce willis is an illegal taxi - cab driver in a futuristic new york city . one day a lady draped with a few bandages drops down into his trunk . this movie is about what happens . the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations . also there is a fair bit of action in the film particularly towards the end . some characters are just plain strange including a highly energetic deer in drag . bruce willis does his normal job of blowing things up . he always does . the movie is definitely watchable and rarely slows down . [SEP] one of those sci - fi films where you will be saying " cool " followed by a " what the hell ? ! ? ! ? " give the fifth element [SEP]

[CLS] the start of this movie reminded me of parts from the movie stargate . people are looking around in an egyptian temple reading about some dangerous thing that going to destroy earth in the future . after a sort of confusing bit involving fake - looking cyborg things , the movie jumps into the future and the movie improves by leaps and bounds , the basic idea behind the movie is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth . the things needed to defend against this menace are the four elements of nature plus the fifth element , the plot here in this movie really is n ' t that important to the thing though : this movie has very good special effects , for the most part . the techno --ish music in the background fits the movie very well . bruce willis is an illegal taxi - cab driver in a futuristic new york city . or a day a lady draped with a few bandages drops down into his trunk , this movie is about what happens . the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations , also there is a fair bit of action in the film particularly towards the end , some characters are just plain strange including a hitherto unknown degrey in drag , bruce willis does normal stuff of bleeding things and weird stuff always goes . the movie is definitely watchable and rarely slows down . it is one of those set - if films where you ' ll be saying " cool " followed by a " what the hell ! ? ! ? ! ? ! ? ! give the fifth element [SEP]

[CLS] the start of this movie reminded me of parts from the movie *stargate* . people are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future . after a sort of confusing bit involving fake - looking cyborg things , the movie jumps into the future and the movie improves by leaps and bounds . the basic idea behind the movie is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth . the things needed to defend against this menace are the four elements of nature plus the fifth element . the plot in this movie really is n ' t that important to the thing though : this movie has very good special effects , for the most part , the techno --ish music in the background fits the mood very well . bruce willis is an illegal taxi - cab driver in a futuristic new york city . one day a lady draped with a few handbags drops down into his trunk . this movie is about what happens : the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations . also there is a fair bit of action in the film , particularly towards the end . some characters are just plain strange including a highly - educated deguy in drag . bruce willis does his normal bit of blabbing things like this always does though . the movie is definitely watchable and rarely slows down . it is one of those sci - fi films where you ' ll be saying " cool " followed by a " what the hell ? ! ? ! ? . i give the fifth element . [SEP]

(g)

[CLS] the start of this movie reminded me of parts from the movie stargate , people are looking around in an egyptian temple reading about some dangerous thing that is going to destroy earth in the future | after a sort of confusing but involving - looking at cyborg things , the movie jumps into the future and the movie jumps by leaps and bounds | the basic idea behind the movie is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth , the things needed to defend against this menace are the four elements of nature plus the fifth element | the plot in this movie really is n | t that important to the thing though | this movie has very good special effects , for the most part | the techno --ish music in the background fits the mood very well | bruce willis is an illegal taxi - cab driver in a futuristic new york city ; one day a lady draped with a few handbags drops down into his trunk | this movie is about what happens , the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations | also there is a fair bit of action in the film particularly towards the end , some characters are just plain strange including a highly energetic dray in dray | bruce willis does his normal job of blowing things like he always does | the movie is definitely watchable and rarely slows down | i am one of those sci - fi hounds where you will be saying " cool " followed by a " what the hell ? ! ? ! ? " ; give the fifth element **SEP**

[CLS] the start of this movie reminded me of parts from the movie stargate . people are looking around in an egyptian temple reading about some dangerous thing that going to destroy earth in the future . after a sort of confusing bit involving fake - looking cyborg things , the movie jumps into the future and the movie improves by leaps and bounds , the basic idea behind the movie is that every once in a while (make that every 1000 years or so) an evil force comes to destroy earth . the things needed to defend against this menace are the four elements of nature plus the fifth element : the plot of this movie really is n ' t that important to the thing though : this movie has very good special effects , for the most part . the techno --ish music in the background fits the mood very well . bruce willis is an illegal taxi - cab driver in a futuristic new york city , or a day a lady draped with a few bandages drops down into his trunk . this movie is about what happens . the plot twists are interesting and the movie never fails to present the viewer with a variety of different locations . also there is a fair bit of action in the film particularly towards the end . some characters are just plain strange including a highly energetic depa in dray . bruce willis does his normal job of blowing things away like it always does . the movie is definitely watchable and rarely slows down . it is one of those sci - fi films where you ' ll be saying " cool " followed by a " what the hell ! ? ! ? ! " give the fifth element . **NEW**

(j)

Figure 24: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention. (k) rollout.

3

note : some may consider portions of the following text to be spoilers . i , forwarded , jones' sojourn 's return to directing after a eight - year layoff , two girls and a guy , is an film which is comprised , more or less , of just that : one guy , blonde (a certain daniel boyd) ; two girls , carla (heather graham) and lou (amanda greyce wagner) ; one primmery setting (blake 's absurdly spacious bachelor apartment) , and a great deal of dialogue .

the film begins with blake (boyd) , a successful , well - liked , but somewhat directionless , man , who has just returned from a vacation in europe . unfortunately , the film 's set up to them , challenges , and the wordy exchanges between the triad of characters , and potentially , could be considered clichéd , though , the film 's setup is fairly generic in nature .

as blake walks into his apartment , he finds lou , a blonde girl , who has just moved in and opens rather unprofessionally , ' we met ' , possessive blonde carla and feisty brittany lou , both waiting outside a solo loft , as they engage in idle chitter . it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it doesn 't take long for them to come to the realisation that they 're being two - timed by the same guy , more , evidently with him than with each other , the duo break into blake 's loft and await his arrival for a confrontation . it 's when blake returns to his abode where the film hits its stride , played with magnificent bombast by mr . downey jr . , blake is a cad , all right , but , i 'll extrapolate , dynamic , blustery , and hopefully , decent . i was not bored with the scene and i raise the stakes to my height . it 's fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scatter off into hiding upon his return , allowing us to size up blake without his interactions with others , but by his own return behaviour , whether he 's flamboyantly behind his piano in a rolling collection of slick , or on the phone leaving messages to his belovèd (carla 's lou , and his unseen sickly mother) . it is here , as the young protagonist , you present , though at this point i almost hoped the him would transform into a one - man show a typical afternoon

[CLS] note : some may consider portions of the following text to be spoilers . be forewarned , jame toback 's return to directing after a eight - year layoff , two girls and a guy , [REDACTED] film which is comprised , more or less , of just that : one girl , blake (robbie downey jr .) ; two girls , carla (heather graham) and louise (kristen wagner) , who are the two spousal roommates in a shared apartment ; and a man , tom (mark wahlberg) , who is a disengaged , somewhat cynical real - time baseball coach . [REDACTED] is a highly thematic feature that completely hangs on the performances of its three stars and the quality of the dialogue written by m . tobak for his bartender characters . fortunately , the film 's cast is up to the challenge , and the witty exchange between the tried characters , while admittedly variable , are occasionally wittily amusing . the film 's setting is fairly generic in nature , and opens rather unpronuminously , we meet self - possessed blonde carrie and feisty brunette lou , both waiting outside a solo loft , as they engage in idle chattering . it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realisation that they are being two - timed by the same guy , more indignant with him than caty with each other . the duo break into blake 's loft and await his arrival for a confrontation . it 's when blake returns to his abode where [REDACTED] hits in stride , played with magnificent bombast by mr . downey jr . , blake is a cad , all right , but is captivatingly dynamic , blusterous , and stealthy piece of work that bursts onto the scene and raises the stakes to new heights . it 's fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scatter off into hiding upon his return , allowing whether he 's flamboyantly behind his piano in a rolling , rhythmic rendition of vividi , or on the phone leaving messages to his beloveds (carla , lou , and his unseen sickly mother) , [REDACTED] is no less than wildly enterprising and insightful though at this point i almost hoped the film would transform into a one - man show - a typical afternoon [SEP]

[CLS] note : some may consider portions of the following text to be spoilers . be forewarned , jonas toback 's return to directing after a eight - year layoff ; two girls and a guy , [REDACTED] which is comprised , more or less , of just that : a guy , blake (robert downey jr .) ; two girls , carrie (heather graham) and emily (gwyneth paltrow) . this is probably why [REDACTED] has been described as 'a great deal of dialogue , emanating near real - life approach , ' this is a highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his bantering characters . fortunately , the film 's cast is up to the challenge , and the witty exchanges between the trio of characters , while admittedly variable , are occasionally wickedly amusing . the film 's setup is fairly generic in nature , and opens rather unprisingly , we meet self - possessed blonde carla and feisty brunette lou , both waiting outside a solo loft , as they engage in idle chatter . it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realisation that they 're being two - timed by the same guy , more indignant with him than catty with each other . the duo break into blake 's loft and await his arrival for a confrontation . it 's when blake returns to his abode where the film hits its stride : played with pinpointed bombast by mr . downey jr . , blake is a cad , all right , but a captivatingly dynamic , blustery , and stealthy piece of work that bursts onto the scene and raises the stakes to new heights . [REDACTED] is fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scanner off into hiding upon his return , allowing us to size up blake not with his interactions with others , but by his own innate behaviour . whether he 's flamboyantly behind his piano in a rollicking rendition of vivaldi , or on the phone leaving messages to his beloveds (carla , lou , and his unseen sickly mother) , [REDACTED] is never less than wildly entertaining and insightful . though at this point i almost hoped the film would transform into a one - man show - a typical afternoon [REDACTED]

(a)

(b)

(c)

[CLS] note: some may consider portions of the following text to be spoilers. be forewarned, james toback's return to directing after a eight - year layoff , two girls and a guy , [REDACTED] him which is comprised , more or less , of just that : one guy , blake (robert downey jr .) ; two girls , carla (heather graham) and lou (natalie dreyfus wagoner) , one primary setting (blake 's absurdly spacious bachelor apartment) , and a great deal of dialogue . embracing a near real - time approach , [REDACTED] is highly theatrical , featuring that completely hangs up the performances of its three actors and the quality of the dialogue written by mr . toback for his bantering characters . fortunately , the film 's [REDACTED] which playfully , amicably , are occasionally , exuberantly , though the setup is fairly generic in nature , and open rather unpronominally , [REDACTED] meet self - possessed blonds carla and feisty brienne lou , both waiting outside a sofa loft , as they engage in idle chitter - chatter about their respective boyfriends to return from the airport , and it doesn't take long for them to come to the realisation that they are being two - timed by the same guy , more indignant with him than catty with each other , the duo break into blake 's loft and await his arrival for a confrontation . it 's when blake returns to his where [REDACTED] hits us stride , [REDACTED] played with [REDACTED] bombshell by mr . downey jr . , blake [REDACTED] a bad , all right , but [REDACTED] captivating (dynamic blusterous , and stealthy piece of work that bursts onto the scene and raises the stakes to new heights . it 's fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scamper off into hiding upon his return , allowing [REDACTED] to size up blake not with his interactions with others , but by his own innate behaviour . whether he 's flamboyantly behind his piano in a rollicking rendition of vividi , or on the phone leaving messages to his beloveds (carla , lou , and his unseen sickly mother) , [REDACTED] no less than wildly entertaining and insightful though at that point i almost hoped the film would transform into a one - man show - a typical afternoon [SEP]

[CLS] note : some may consider portions of the following text to be spoilers . be warned , james toback 's return to directing after a eight - year layoff , two boys and a guy , is a film which is comprised , more or less , of just that : one guy , blake (robert downey jr .) ; two girls , carla (heather graham) and lou (natasha regan wagner) . one primary setting (blake 's absurdly spacious bachelor apartment) , and a great deal of dialogue . embracing a narrative time - a approach , this is a highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his bantering characters . fortunately , the film 's characters are well - developed , exchanges between them are tried and true , and while slightly amateurish , are occasionally . . . well . . . charming . the setup is fairly generic in nature , and opens rather unpronominously , as most self - possessed blonds carry on and feisty brunette lou , both waiting outside a sofa loft , as they engage in idle chatter . it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realisation that they are being two - timed by the same guy , more indignant with him than caty with each other , the duo break into blake 's loft and await his arrival for a confrontation . it 's when blake returns to his where the film hits its stride playing with precedence bombed by mr downey jr , blake is a cad , all right , but captivatingly dramatic blusterous , and stealthy pieces of work that bursts onto the scene and raises the stakes to new heights . it 's fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scamper off into hiding upon his return , allowing us to size up blake not with his interactions with others , but by his own innate behaviour , whether he 's flamboyantly behind his piano in a rolling rendition of vivaldi , or on the phone leaving messages to his beloveds (carla , lou , and his unseen sickly mother) . it 's never less than wildly entertaining and insightful though at that point i almost hoped the film would transform into a one - man show - a typical afternoon [SEP]

[CLS] note : some may consider portions of the following text to be spoilers . be forewarned , james toback 's return to directing after a eight - year layoff , two girls and a guy , is a film which is comprised , more or less , of just that : one guy , blake (robert downey jr .) ; two girls , carla (heather graham) and lou (natasha rogerson wagner) ; one primary setting (blake 's absurdly spacious bachelor apartment) , and a great deal of dialogue , embracing a near real - time approach . this is a highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his bantering characters . fortunately , the film 's cast is up to the task . though the dialogue is often clichéd , the setup is fairly generic in nature , and ~~blake~~ rather unimpressively , we meet self - possessed blonde carla and feisty ~~blunt~~ lou , both waiting outside a scho - loft , as they engage in idle chatter , it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realization that they 're being two - timed by the same guy . more indignant with him than carla with each other , the broo cloak into blake 's loft and await his arrival for a confrontation . it 's when blake returns to his abode where the film hits its stride . played with magnificent ~~realism~~ by mr . downey jr . , blake is a cad , all right , but a captivatingly dynamic , blusterous , and stealthy piece of work that bursts onto the scene and raises the stakes to new heights . it 's fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scamper off into hiding upon his return , allowing us to size up blake not with his interactions with others , but by his own innate behaviour . whether he 's flamboyantly behind his piano in a rollicking rendition of vivaldi , or on the phone leaving messages to his beloveds (carla , lou , and his unseen sickly mother) , it 's never less than wildly entertaining and insightful . though at this point i almost hoped the film would transform into a one - man show - a typical afternoon [SEP]

(d)

(e)

(f)

[CMLS] note : some may consider portions of the following text to be spoilers , be forewarned , [redacted] tobacco 's return to directing after a eight - year lulloff , two girls and a guy , a guy , is a film which is comprised , more or less , of just that : one guy , blake (robert downey jr .) ; two girls , carla (heather graham) and lou (natasha gresyon wagner) , one primary setting (blake 's absurdly spacious bachelor apartment) , and a great deal of dialogue [embracing a man - time - space approach this is a highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by me : tobacco for his bantering characters] fortunately , the film 's cast is up to the challenge , and the wordy exchanges between the trio of characters while admittedly variable are occasionally wickedly amusing [the film 's set up is fairly generic in nature , and opens rather impromissingly we meet self - possessed blonde carla and feisty brunette lou , both waiting outside a solo loft , as they engage in idle chit - chat . it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realization that they have been left two times in a row and that they 've had it with this caty with the other , so the duo break into blake 's loft and demand him for a conference [it 's here when blake returns to his bedroom and the film hits its stride , played with a palpable bawdiness by mr . downey jr ., blake is a cad , all right , but a captivatingly dynamic one at that , and stealthily piece of work that bursts onto the scene and raises the stakes to new heights] it 's fascinating to watch his two girlfriends scamper off into hiding , perhaps the film 's best choice was to have his two girlfriends scamper off into hiding upon his return , allowing us to size up blake not with his interactions with others , but through his own behaviour [whether he 's flamboyantly behind his piano in a rollicking rendition of vividi , or on the phone leaving messages to his beloveds (carla , lou) and his unseen sickly mother , it 's never less than wildly entertaining and insightful] though at this point i almost hoped the film would transform into a one - man show - a typical afternoon [SEP]

[CLS] note : some may consider portions of the following text to be spoilers . however , i was not aware of the film 's return to directing after a eight - year layoff , two girls and a guy , is a film which is comprised , more or less , of just that : one girl , blake (robert downey jr .) ; two girls , carla (heather graham) and lou (natasha gresyon wagner) . one primary setting (blake 's absurdly spacious bachelor apartment) , and a great deal of dialogue . embracing a narrative style - time approach , this is a highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by me : tobacci for his bantering characters ; fortunately , the film 's cast is up to the challenge , and the wordy exchanges between the trio of characters , while admittedly variable , are occasionally wickedly amusing ; the film 's setup is fairly generic in nature , and opens rather impromissingly . we meet self - possessed blonde carla and feisty brunette lou , both waiting outside a solo loft , as they waited in idle chattered , it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realization that they are two of a kind . the two girls begin to bond with each other , and with this in mind , the other , who returns to his alone - bed and left the film hits his stride , played with a blustery and manly enthusiasm by donkey jr . , blake is a cad , all right , but a captivatingly dynamic bluster , and sneaky piece of work that bursts onto the scene and raises the stakes . as for new heights , it 's fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scanner off into hiding upon his return , allowing us to size up blake without his interactions with others ; but , by his own innate behaviour , whether he 's flamboyantly behind his piano in a rollicking rendition of ivywild , or on the phone leaving messages to his beloveds (paula lou) , and his unseemly sly mother (l) , it 's never less than wildly entertaining and insightful . though at this point i almost hoped the film would transform into a one - man show - a typical afternoon [SEP]

[CLS] note : some may consider portions of the following text to be spoilers . be forwarded , janes toback 's return to directing after a eight - year layoff , two girls and a guy , is a film which is comprised , more or less , of just that : one guy , blake (robert downey jr .) ; two girls , carla (heather graham) and lou (natasha gresyon wagner) ; one primary setting (blake 's absurdly spacious bachelor apartment) , and a great deal of dialogue , embracing a near - real - time approach . this is a highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his bantering characters . fortunately , the film 's cast is up to the challenge , and the wordy exchanges between the trio of characters , while admittedly variable , are occasionally wickedly amusing ; the film 's setup is fairly generic in nature , and opens rather unprisingly , we meet itself , possessed blonde carla and feisty brunette lou , both waiting outside a solo loft ; as they lounge in idle chatter , it is revealed that they 're both waiting for their respective boyfriends to return from the airport , and it doesn 't take long for them to come to the realization that they 're being two - brained by the guy , most notably with him than with each with others , the duo bring to blake 's love life at his home his sexual need for a companion . it 's when blake begins to be exposed to lou 's blunt and strident play with naturalism , bombshell by mr . downey jr ., blake is a card , ~~right~~ , but a captivatingly dynamic , blustery , and stealthily piece of work that bursts onto the scene and raises the stakes to new heights . it 's fascinating to watch this character in his natural habitat , and perhaps the film 's best choice was to have his two girlfriends scamper off into hiding upon his return , allowing us to size up blake not with his interactions with others , but by his own innate behaviour , whether he 's flamboyantly behind his piano in a rollicking rendition of vivaldi , or on the phone leaving messages to his beloveds (~~each~~) lou , and his unseeck sickly mother , it 's never less than wildly entertaining and insightful ; though at this point i almost hoped the film would transform into a one - man show -- a typical afternoon [SEP]

(g)

(h)

(i)

[CLS] note : some may consider portions of the following text to be spoilers . be forewarned , james toback is known to direct after a eight - year lulloff [two girls and a guy] . he has directed the last days of emile zola , the last days of emile zola , two girls , park (heather graham) and lonely (matushka , tony rogan) . lonely is his one primary setting (blake 's unusually spacious bachelors apartment) , and a great deal of dialogue [blake] embarking a near - real time approach . lonely is highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his bantering characters . fortunately , the film 's cast is up to the challenge , and the wordy exchanges between the triad of characters while admittedly varies are occasionally wickedly amusing . the film 's set is fairly generic in nature , and open rather unprisingly [lonely] meet self - possessed blonde clairisse and feisty brienne lot , both waiting outside a solo loft , as they engage in idle chattering . it is revealed that they 're both waiting for their respective boyfriends to return from work , and it does [lonely] take long for them to come to the realization that they are being two - timed by the same guy [lonely] more indignant with him than caty with each other , the blake break into blake 's loft and await his arrival for a confrontation [lonely] it 's when blake returns to his abode where the film hits its stride ; played with magnificently bonvouloir by mr . downey jr . , blake is a dad , all right , but a captivatingly dynamic blusterous , and stealthily piece of work that bursts onto the scene and raises the stakes to new heights [lonely] it 's fascinating to watch this character in his natural habitat , and perhaps the most interesting character is his two girlfriends , brienne and clairisse . brienne is the more aloof , allowing her to slip away from his interactions with others , but also by his own innate alienation , whether he 's flambantly behind his piano in a rolling thunder of rouléau , or on the phone leaving messages to his beloveds (catia , lon) and his unseen sickly mother . [lonely] is never less than witty , entertaining and insightful , though at this point I almost hoped the film would transform into a one - man show - a typical stargazing .

[CLS] note : some may consider portions of the following text to be spoilers . be forewarned . jamestown ' s reward is to directing after a eight - year layoff , two girls (carla and lori) who are best friends , and a boy (blake) who is their friend . (see my jr . note) . this film is a comedy , a drama , a mystery , a thriller , a romance , a one - primary setting (blake ' s absurdly spacious bachelor apartment) , and a great deal of dialogue . embracing a near - real - time approach , this is a highly theatrical feature that completely hangs upon the performances of its three actors and the quality of the dialogue written by mr . toback for his bantering characters . fortunately , the film ' s cast is up to the challenge , and the wordy exchanges between the trio of characters (while admittedly variable , are occasionally wickedly amusing , the film ' s setup is fairly generic in nature , and opens rather unimpressingly , we meet self - possessed blonde carlie and feisty brittany loe , both waiting outside a solo loft , as they engage in idle chattering , it is revealed that they ' re both waiting for their respective boyfriends to return from the airport , and it does n't take long for them to come to the realization that they are being two - timed by the same guy : more indignant with him than caty with each other , the duo break into blake ' s loft and await his arrival for a confrontation . it ' s when blake returns to his abode where the film hits its stride , played with magnificence by mr . downey jr . , blake is a cad , all right , but a captivatingly dynamic blusterous , and stealthy piece of work that bursts onto the scene and raises the stakes to new heights . it ' s fascinating to watch this character in his natural habitat , and perhaps the most endearing is his best move was to have his two girlfriends report for duty at his home before his return , allowing either his lmao to his interaction with others , blake by his own admission , although whether he ' s flambouyantly behind his piano in a soliloquizing rendition of visconti , or on the phone leaving messages to his beloveds (carla , lori , and his unseen sickly mother) , it ' s never less than wildly entertaining and insightful though at this point i almost hoped the film would transform into a one - man show . a typical american screwup .

Figure 25: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention. (k) rollout.

robert altman's "cookie's fortune" is that rare movie that does not depend fundamentally on politics or man's cleverness, good or evil, to move it along. the drama here is built entirely upon personal, sexual, financial, emotional, temporal, and social conflicts. the plot is simple enough: a woman, cookie (julianne moore), is forced to start slowly as it introduces us to the various characters, their ways of theming and their daily lives. first we meet willie (charles s. dutton), a bawdy old bartender at a slight drinking hole, who then sees that willie takes care of an elderly lady nicknamed cookie, who is slowly losing her husband on sanity and is being filled with loneliness, despair, and want. when she dies, we cut to camille (glen close) who is obsessively directing a play with her sister cora (julianna moore), then we briefly get acquainted with emma (lily taylor), an apparent relative of cookie, who is a clown - but - not - queen - teen outcast, still full of love and hope even though she has no real place to live, we also see fleetingly see emma's lover jason (chris o'donnell), an ambitious but far too excitable, young cop, we are now about one quarter through the two hour picture, and robert altman decides that it is time to set the plot in motion, we see the eccentric cookie stare hopefully at a picture of her husband, she exclaims "here i come !" and then puts a pillow to her face and shoots herself, soon after, her nice camille comes to get a fruit salad bowl, comes upstairs, finds cookie dead and flots off, convinced that suicide is a disgrace and that she will have none of that in her family, she eats the suicide notes and convinces her slightly slow (yet sweet) sister that it was a murder, she makes sure that she stages it like a murder as well; scattering jewelry all over the floor, breaking a few cabinets, windows and doors, and then throwing the gun out in the back yard, the only reasonable suspect is willie, who immediately gets taken into custody, and put in a jail cell (they all know he didn't do it, so the cell stays open and he plays scrabble with the sheriff and the faithful emma) . meanwhile, the upstirred camille continues the non - too - subtle manipulations trying to further cover up for the murder while at the home - too - subtle manipulations trying to further cover up for the murder while at

[CLS] robert alman's a cookie's fortune [is] that movie that does not depend of sentimentality to be uplifting and to make its viewers feel good, it is simply, delightfully [drama] comedy, filled by lovely performances, skillful direction and topped off with an undercurrent of charm; extraordinary script, as this is the case, it forces us to [reflect] on what it means to be human, to its characters, all of them living in a southern town called hollywood, we first meet willie (charles dutton), an elderly man with a slight drinking habit, we then meet emma (julianna moore), who is obsessively directing a play with her sister cora (julianna moore), then we briefly get acquainted with emma (in tyler), an apparent relative of cookie, who is a down - but not out - teen actress, still full of love and hope even though she has no real place to live, we also meet festively see emma's lover jason (chris o'donnell), an ambitious but far to excitable young cop, we are now about one quarter through the two hour picture, cookie and want of dead husband, we eat to camille (glenn close) who is obsessively directing a play with her sister cora, she exclaims "here come i!" and then puts up a pillow to her face and shoots herself, soon after, her niece camille stops by to get a fruit salad bowl, comes upstairs, finds cookie dead and flips out, convinced that suicide is a disgrace and that she will have none of it in her family, she carries the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder, she makes sure that she stages it like a murder as well; scattering jewelry all over the floor, breaking few cabinets, windows and doors, and then throwing the gun out in the back yard, the only reasonable suspect is willie, who immediately gets taken into custody, and put in a jail cell (they all knew he didn't do it), so the cell stays open and he plays scrubballs with the sheriff and the faithful emma, meanwhile, the unperfected camille continues her none - too - subtle manipulations trying to further cover up for the murder while a [SEP]

[CLS] robert altman's "cookie's fortune" is that rare movie that does not depend on sentimentality to be uplifting and to make its viewers feel good . . . [REDACTED] sunny, delightful, "dream comedy", filled with lovely performances , skillful direction and topped off with an exceptionally clever, extraordinary script . . . as is impossible , it is forced to start of slowly and introduce us to its characters , one of them being a man from a small town called willie , first seen in a modest (charles s. dutten) , an honest man with a slight drinking habit . . . we then see that willie takes care of an elderly lady nicknamed cookie , who is slowly losing her grip on sanity and is being filled with loneliness, despair and want of her dead husband , we cut to camille (glen close) who is obsessively directing a play with her sister cora (julianne moore) , then we briefly get acquainted with emma (liv tyler) , an apperent relative of cookie , who is a down - but - not - out teen outcast , still full of love and hope even though she has no real place to live , we also fleetly see emma's lover jason (chris o' donnell) , an ambitious but far too excitable young cop . we are now about one quarter through the two hour picture , and robert altman decides that it is time to set the plot in motion . we see the ecstatic cookie stare hopefully at a picture of her husband , she exclaims "here i come ! " and then puts a pillow to her face and shoots herself . soon after , her niece camille stops by to get a fruit salad bowl , comes upstairs , finds cookie dead and flips out , convinced that suicide is a disgrace and that she will have none of that in her family . she eats the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder . she makes sure that she stages it like a murder as well ; scattering jewelry all over the floor , breaks a few cabinets , windows and doors , and then throwing the gun out in the back yard , the only reasonable suspect is willie , who immediately gets taken into custody , and put in a jail cell (they all knew he didn't do it) , so the cell stays open and he plays scrabble with the sheriff and the faithful emma . meanwhile , the unperturbed camille continues her non - too - subtle manipulations trying to further cover up for the murder while at the [SEP]

(a)

[CLS] robert alman^t cookie's fortune [that rare good] that does not depend or ultimately be uplifting and to make its viewers feel good. [CLS] sumptuous, delightful, dreamy, comely, filled with lovely performances, skillful direction and topped off with an understated, clever, extraordinary script, as this is an ensemble piece, it is forced to start of slowly as it introduces us to its characters, all of them residing in a southerner town called holly springs, first we meet willie (charles s. dutton), an honest man with a slight drinking habit. we then see that willie takes care of an elderly lady nickname cookie, who is slowly losing her grip on sanity and is being filled with loneliness, despair, and, and want of her husband... we cut to emilia (glee cast) who is obviously directing a play with her sister cora (julianne moore). these briefs get acquainted with each other. ivy (laura bell bundy) appears rather coolly and she is a down-to-earth woman who has a full of love for her son, she wants to live a simple life but too also fleetingly sees emilia's lover jesse (chris o' donnell)... an ambitious but far too excitable young cop, we are now about one quarter through the two hour picture, and robert alman decides it is time to set the plot in motion, we see the eccoistic cookie stare hopefully at a picture of her husband, she exclaims "here come i!" and then puts a pillow to her face and shoots herself, soon after, her nice camille steps by to get a fruit salad bowl, comes upstairs, finds cookie dead and flips out, convinced that suicide is a disgrace and that she will have none of that in her family, she eats the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder, she makes sure that she stages it like a murder as well; scattering jewelry all over the floor, breaking a few cabinets, windows and doors, and then throwing the gun out in the back yard, that only reasonable suspect is willie, who immediately gets taken into custody, and put in a jail cell (they all knew he didn't do it), so the cell stays open and he plays scrabble with the sheriff and the faithful emma. meanwhile, the upturned camille continues her non - too subtle manipulations trying to further cover up for the murder while at the [SEP]

[CLS] robert alman's "cookie's fortune" [**that rare movie**] that does not depend of sentimentality to be uplifting and to make its viewers feel good. **[I]** simply, delightfully, dreamy, comedy, filled with lovely performances, skillful direction and topped off with an understated, clever, extraordinary script, as this is an ensemble piece. it is forced to start of slowly as it introduces us to its characters, all of them residing in a southerner town called holly springs, first we meet willie (charles s. dutton), an honest man with a slight drinking habit, we then see that willie takes care of an elderly lady nickname cookie, who is slowly losing her grip on sanity and is being filled with loneliness, despair, and want of her husband, we cut to camille (glee close) who is obsessed with directing a play with her sister cora (julianne moore), then we briefly get acquainted with emma (lily taylor), an apparently relative of cookie, she is a down - but - kind woman, she has a full life, however she is a bit of a hoarder, she loves to buy things and also festively seems to have a lover jason (chris p. o'donnell) an ambiitious but far to excitable young cop, we are now about one quarter through the two hour picture, and robert alman decides that it is time to set the plot in motion, we see the eccentric cookie stand hopefully at a picture of her husband, she exclaims "here i come!" and then puts a pillow to her face and shoots herself, soon after, her nice camille starts to get by to eat fruit salad bowl, comes upstairs, finds cookie dead and flies out, convinced that suicide is a disgrace and that she will have none of that in her family, she carries the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder, she makes sure that she stages it like a murder as well; scattering jewelry all over the floor, breaking few cabinets, windows and doors, and then throwing the gun out in the back yard, the only reasonable suspect is willie, who immediately gets taken into custody, and put in a jail cell (they all knew he didn't do it), so the cell stays open and he plays scrabble with the sheriff and the faithful emma, meanwhile, the unperturbed camille continues her none - too - subtle manipulations trying to further cover up for the murder while a [SEP]

[CLS] robert albert [CLS] cookie's fortune is that rare movie that does not depend on sentimentality to be uplifting and to make its viewers feel good [CLS] is a sunny, delightful, dreamy [CLS], filled with lovely performances, skillful direction and topped off with an understated, clever, extraordinary script [CLS] as this is an ensemble piece [CLS], it is forced to start slowly as it introduces us to its characters, all of them residing in a southern town called holly springs. first we meet willie (charles [CLS] dutton), a honest man with a slight drinking habit . we then see that willie takes care of an elderly lady nicknamed cookie, who is slowly losing her grip on sanity and is being cared for by loneliness, despair [CLS] and want of her dead husband [CLS] we cut to camille (glen close) who is obsessively directing a play with her sister cora (julianna moore) [CLS] then we briefly get acquainted with emma (ivy levan), an appallingly relation of cookie's . she is a down - but - not - out type of person who has had a hard life but is ambitious to find success [CLS] she also fleetingly sees emma's lover jason (chris [CLS] d'ONOFRIO) , an ambitious but far too excitable young cop [CLS] we are now about one quarter through the two hour picture [CLS] and robert allderman decides that it is time to set the plot in motion . here we see the estastic castle stare hopefully at a picture of her husband, she exclaims "here he come!" [CLS] and then puts a pillow to her face and shoots herself [CLS] soon after, her nice niece camille steps by to get a fruit salad bowl, comes upstairs, finds cookie dead and flips out [CLS] convinced that suicide is a disgrace and that she will have none of that in her family , she eats the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder , she makes sure that she stages it like a murder as well : scattering jewelry all over the floor , breaks a few cabinets , windows and doors [CLS] and then throwing the gun out on the back yard [CLS] the only reasonable suspect is willie , who immediately gets taken into custody , and put in a jail cell (all they knew he did [CLS] not) , so the cell stays open and he plays scrabble with the sheriff and the faithful emma [CLS] meanwhile , the unperturbed camille continues her non - too - subtle manipulations trying to further cover up for the murder while at the [SEP]

(b)

[CLS] robert altman 's cookie 's fortune ■ that rare movie that does not depend on sentimentality to be uplifting and to make its viewers feel good . it ■ sunny , delightful , dreamy comedy ; filled with lovely performances , skillful direction and topped off with an understated , clever , extraordinary script , as this is an ensemble piece , it is forced to start slow : it introduces us to its characters , all at their ease , in a southern town called spangles , first we see charles (charles durning) , a slightly dimwitted , a slight drinking problem , man who sees that will take care of an elderly lady nicknamed cookie , who is slowly losing her grip on sanity and is being filled with loneliness , despair , and want of her dead husband , we cut to camille (julianne moore) , who is obsessively directing a play with her sister corona , an appallingly naive cookie , who is a bawdy yet acquired taste , still full of love and hope even though she has no real place to live , we also meet seema , 's lover jason (chris o ' donnell) , an ambitious but far too excitable young cop , we are now about one quarter through the two hour picture , and robert altman decides it is time to set the plot in motion , we see the eccotic kitchen stare hopefully at a picture of her husband , she exclaims " here i come ! " and then puts a pillow to her face and shoots herself , soon after , her nice camille steps by to get a fruit salad bowl , comes upstairs , finds cookie dead and flips out , convinced that suicide is a disgrace and that she will have none of that in her family , she eats the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder . she makes sure that she stages it like a murder as well ; scattering jewelry all over the floor , breaking a few cabinets , windows and doors , and then throwing the gun out in the back yard , the only reasonable suspect is willie , who immediately gets taken into custody , and put in a jail cell (they all know he didn ' t do it) , so the cell stays open and he plays scrabble with the sheriff and the faithful emma) . meanwhile , the unperturbed camille continues her non - too - subtle manipulations trying to further cover up for the murder while at the [SEP]

[CLS] robust alman 's cookie 's fortune is that rare movie that does not depend on sentimentality to be uplifting and to make its viewers feel good . it is a sunny , delightful , dreamy comedy , filled with lovely performances . as this is an ensemble piece , it is forced to start as slowly as it introduces us to its characters , all of whom are residing in a southern town . we are introduced to the various spinsters , first we meet emma (julianne moore) , a slight drinking habit , then we see that well-meaning takes care of an elderly lady nickname cookie , who is slowly losing her grip on sanity and is being filled with loneliness , despair , and want of her husband , we cut to camille (glenn close) who is obsessed with directing a play with her sister cora (julianne moore) ; then we briefly get acquainted with emma (in tyler) , an apparent relative of cookie , who is a down - but - not - out teen actress , still full of love and hope even though she has no real place to live . we also fleetingly see emma 's lover jason (chris o 'donnell) , an ambitious but far too excitable young cop , we are now about one quarter through the two hour picture , and robust alman decides that it is time to set the plot in motion , we see the eccentric cookie stare hopefully at a picture of her husband , she exclaims " here i come ! " and then puts a pillow to her face and shoots herself , soon after , her nice camille strolls by to get a fruit salad bowl , comes upstairs , finds cookie dead and flips out , convinced that suicide is a disgrace and that she will have none of that in her family , she carries the notice out and convinces her slightly slow (yet sweet) sister that it was a murder , she makes sure that she stages it like a murder as well ; scattering jewelry all over the floor , breaking a few cabinets , windows and doors , and then throwing the gun out in the back yard , the only reasonable suspect is willie , who immediately gets taken into custody , and put into a jail cell (they all know he didn ' t do it , so the cell stays open and he plays scrabble with the sheriff and the faithful emma) . meanwhile , the unperturbed camille continues her none - too - subtle manipulations trying to further cover up for the murder while at the [SEP]

[CLS] robert altman 's cookie 's fortune is that rare movie that does not depend on sentimentality to be uplifting and to make its viewers feel good . it is a sunny , delightful , dreamy comedy , filled with lovely performances (skillful **actress** and **topped off** with an understated , clever , extraordinary performance) , as this is the ensemble piece , it is forced to start so early as it introduces us to [S] characters , all of them residing in a southern town . we hardly have time to get to know them before they are whisked away to a distant town with a holly berry pie . first we meet [S] (charles dutton) , an honest man with a drinking habit , who has a son that willfully takes care of an elderly lady nicknamed cookie , who is slowly losing her grip on sanity and is being filled with loneliness , despair , and want of her dead husband , we meet to camille (glenn close) who is obsessively directing a play with her sister cara (julianne moore) , then we briefly get acquainted with emma (liv tyler) , an apparent relative of cookie , who is a down - but - not - out tennis outcast , still full of love and hope even though she has no real place to live . we also fleetingly see emma 's lover jason (chris o ' donnell) , an ambitious but far too excitable young cop . we are now about one quarter through the two hour picture , and robert altman decides it is time to set the plot in motion . we see the ecstatic cookie stare hopefully at a picture of her husband , she exclaims " here i come ! " and then puts a pillow to her face and shoots herself . soon after , her niece camille stops by to get a fruit salad bowl , comes upstairs , finds cookie dead and flips out , convinced that suicide is a disgrace and that she will have none of that in her family . she eats the suicide note and convinces her slightly slow (yet sweet) sister that it was a murder . she makes sure that she stages it like a murder as well : scattering jewelry all over the floor , breaking a few cabinets , windows and doors , and then throwing the gun out in the back yard . the rather reasonable suspect is willie , who immediately gets taken into custody , and put in a jail cell (all they knew he didn ' t do ' t) , so the cell stays open and he plays scrabble with the sheriff and the faithful emma . meanwhile , the unperturbed camille continues her none - too - subtle manipulations trying to further cover up for the murder while at the [SEP]

(g)

[CLS] robert alman¹'s cookie's fortune ■ that rare move that does not depend or
depend on being able to make the viewer feel bad ■ a shiny, delightful
drama, ~~romantic~~, filled with lively performances, a shiffling director, a topped off with
an understated, clever, extraordinary script, as this is an ensemble movie. it is forced
to start of slowly as it introduces us to its characters, all of them residing in a southerner
town called holly springs, first we will meet charles (charles s. dutton) , an honest man with a
a slight drinking habit. we then see that willie takes care of an elderly lady nickname
cookie, who slowly losing her grip on sanity and is being filled with loneliness, despair and
, and want of her dead husband ; we cut to camille (glen close) who is obsessively
directing a play with her sister cora (julianne moore) , then we briefly get acquainted
with emma (liv tyler), an apparent relative of cookie, who is a down - but - not - out
teen outcast, still full of love and hope even though she has no real place to live ; and then
also fleetingly see emma' s lover jason (chris o' donnell) , an ambitious but far too
excitable young cop ; we are now about one quarter through the two hour picture , and robert alman decides that it is time to set the plot in motion. we see the eccentric cookie
stuck hopefully at a picture of her husband , she exclaims " here come the men " and then puts
her head in her hands and begins to cry . after a few moments of silence , she gets up , picks up
a fruit salad bowl , comes upstairs , finds cookie dead and flips out ; convinced that cookie is
a disgrace and that she will have none of that in her family , she cuts the suicide notes
and convinces her slightly (yet sweet) sister that it was a murder . she makes sure
that she stages it like a murder as well ; scattering jewelry all over the floor , breaking
five cabinets , windows and doors , and then throwing the gun out in the back yard ; but the
only reasonable suspect is willie , who immediately gets taken into custody , and put in
a jail cell (they all knew he didn't do it , so the cell stays open and he plays scrubables
with the sheriff and the faithful emma) ; meanwhile , the upstairs opened camille continues
her non - too - subtle manipulations trying to further cover up for the murder while at
the [SEP]

[CLS] robert alman : a cookie's fortune is that rare movie that does not depend of sentimentality to be uplifting and to make the viewers feel good . it is also a delightfully dreamy comedy , filled with lovely performances , skillful direction and topped off with an understated , clever , extraordinary script . as this is an ensemble piece , it is forced to start of slowly as it introduces us to its characters , all of them residing in a southerner town called holly springs . first we meet willie (charles s . dutton) , an honest man with a slight drinking habit . we see that willie takes care of an elderly lady nicknamey cookie , who is slowly losing her grip on sanity and is being filled with loneliness , despair and , and want of dead husband , we cut to camille (glenn close) who is obsessively directing a play with her sister emma (julianne moore) , then we briefly get acquainted with emma (liv tyler) , an apparent relative of cookie , who is a down - but - not - out woman , test out , still full of love and hope even though she has no real place to live , we also fleetingly see emma 's lover jason (chris o ' donnell) , an ambitious but far to excitable young cop . we are now about one quarter through the two hour picture , and robert alman decides that it is time to set the plot in motion . we see the eccentric cookie stand hopefully at a picnic in her husband 's hometown . she exclaims " here i come ! " and the scene changes to a small shop owned by herself and emma . emma is in the kitchen , cookie is at a fruit salad bowl , comes upstairs , finds cookie dead and flips out , convinced that someone is a disgruntle and that she will have none of that in her family , she carries the notice outside and convinces her slightly slow (yet sweet) sister that it was a murder . she makes sure that she stages it like a number as well , scattering jewelry over all the floor , breaking windows , hitting furniture , and then throwing the gun out in the back yard . the only reasonable suspect is willie , who immediately gets taken into custody , and put in jail a jail cell (they all knew he didn ' t do it) , so the cell stays open and he plays scrubball with the sheriff and the faithful emma . meanwhile , the unperturbed camille continues her none - too - subtle manipulations trying to further cover up for the murderer while at the **SEP**

(h)

Figure 26: A visualization of the results. For methods that are class-agnostic, as well as the raw attention methods, are class-agnostic. (d) BERT class. (e) Partial LRP for the CF class. (f) GradCAM (g) salient.

at rely on a specific class for propagation, we present both stochastic. Some words are split into multiple tokens by the model. Our method for the ground truth [GT] class. (c) Our method for the GT class. (g) GradCAM for the CF class. (h) LRP

with the ground-truth and counter-factual results. The rollout ERT tokenizer. (a) Ground truth (**positive** sentiment). No good for the counter-factual [CF] class. (d) Partial LRP for the for the GT class. (i) LRP for the CF class. (j) raw-attention

well i'll be damned ... ~~the~~ ~~shouldn't~~ ~~we~~ ~~have~~ ~~been~~ ~~here~~, the world is coming to an end .. we don't know why or how, but apparently there is no way to stop it, the world had this information for months, as most of the rioting and other assortments that has passed and governments have shut down operations .. yet for a handful of toronto citizens, life goes on.. they are not going crazy attacking people in the streets.. instead they are staying home, watching movies, reading books, writing stories, and doing what they always wanted to do .. some gathering with family and friends, and others .. not wanting to be alone .. these people's lives however all interest during their final six hours, writer .. director .. star .. ~~they~~ ~~had~~ ~~been~~ ~~here~~ ~~to~~ ~~see~~ ~~the~~ ~~movie~~ ~~film~~ .. it .. ~~is~~ ~~so~~ ~~compelling~~ as they try and do whatever it is they need to do on their last night on earth .. craig (callum kent remie) tries to fulfill all his sexual fantasies .. a gas company employee (daniel cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business .. and patrick (mckellar) just wants to be by himself but it's not having much success .. even minor characters keep popping up where you least expect them to .. tying everyone even closer .. things seemed a little hokey towards the beginning of the film, but ~~blended~~ ~~everything~~ ~~just~~ ~~clicked~~ nicely (although it's not a happy film .. some moments are understandable .. others aren't .. like the scene with the old man who is still performing .. particularly finding sandra oil, whose character is just trying to get home to her husband before the end .. i have absolutely no problem that the reason for the end of the world is never given, nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway) .. but i do wonder why the sun never sets come midnight, the sun is still shining brightly .. because the sun is crashing into the earth .. who knows .. it's comforting to know that in mankind's final moments on the planet .. we still will gang up on the street for the sheer purpose of pushing over a car or a bus (that's not a shot at this film mind you .. i swear people are just stupid and truly would be out in the street tipping over cars) .. last night is available on dvd

[CLS] well i'll be damned .. the canadians can make a good movie . the world is coming to an end . we do n't know why or how , but apparently there is no way to stop it . the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations , yet for a handful of us citizens , life goes on as they are getting crazy or attacking people on the streets . i am not a violent person , though , i am more interested in watching what they 've always wanted to do , such as gathering with family and friends , and others just seeking to be alone . these people 's lives however all intersect during their final six hours . writer + director + star denis mcelern has crafted a highly unique and emotional film . all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth . craig (calum kent remie) tries to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mcelern) just wants to be by himself but is n't having much success .. even minor characters keep popping up where you least expect them to , tying everyone even closer . things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it 's not a happy film .) the most interesting character is greg (william fichtner) , who is a bit of an unexpected human and very weird performances , particularly from sandra oh , whose character is just trying to get home to her husband before the end . i have absolutely no problem that the reason for the end of the world is never given , nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway) . but i do wonder why the sun never sets come midnight , the sun is still shining brightly . maybe the sun is crashing into the earth ... who knows , also , it 's comforting to know that in mankind 's final moments on the planet , people will still gang up on the street for the sheer pleasure of pushing over a car or a bus (that 's not a shot at this film mind you . . . i know people are just stupid and truly would be out in the street tipping over cars) late night is available on dvd [SEP]



[CLS] well i 'll be damned ... the canadians can make a good movie , the world is coming to an end ... we don 't know why or how , but apparently there is no way to stop it , the world has had this information for months , as most of the rioting and other associated chaos has passed and government have shut down operations , yet for a handful of toronto citizens , life goes on as they n 't going crazy or attacking people in the streets , they are still going to work , still going to school , still going to their social activities , they 've always wanted to do , some gathering with family and friends , and others just seeking to be alone , these people 's lives however all intersect during their final six hours , writer + director ... star dan mckellar has crafted a highly unique and emotional film , all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth , craig (callum keltch remipe) tries to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself but is n 't having much success , even minor characters keep popping up where you least expect them to , tying everyone even closer , things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although i 'm not a happy film person , i do like this one) , the writing is great and the direction is excellent , the unexpected human side gets realistic experiences , particularly from sandra oh , whose character is just trying to get home to her husband before the end ... i have absolutely no problem that the reason for the end of the world is never given , nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway) , but i do wonder why the sun never sets , come midnight , the sun is still shining brightly ... maybe the sun is crashing into the earth ... who knows , also , it 's comforting to know that in mankind 's final moments on the planet , people will still go up on the street for the sheer purpose of piling over a car or a bus (that 's not a shot at this film mind you , i know people are just stupid and truly would be out in the street tipping over cars) last night is available on dvd [SEP]

[CLS] well i'll be damned . . . the canadians can make a good movie , the world is coming to an end , we do n't know why or how , but apparently there is no way to stop it , the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations , yet for a handful of toronto citizens , life goes on , they are n't going crazy or attacking people in the streets , they are still going to work , some are still going to school , in fact , some of their activities that are always meant to do , like going gathering with friends , or others just seeking to be alone , these people 's lives however all intersect during the final six hours . writer - director - star don molaras has created a highly unique and emotional film , all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth , craig (callum kent remie) tries to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself and is n't having much success . even minor characters keep popping up where you least expect them to , trying everyone everything things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it's not a happy film) . the film is extremely suspenseful and gives you a real sense of what it would be like to be unexpected humans and very realistic performances , particularly from sander of whose character is just trying to get to his husband before the end , i have absolutely no problem that the reason for the end of the world is never given , nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway) , but i do wonder why the sun never sets , come midnight , the sun is still shining brightly , maybe the sun is crashing into the earth . . . who knows , also , it 's still shining brightly , to know that in mankind 's final moments on the planet , people will still gang up on the street for the sheer purpose of pushing over a car or a bus (that 's not a shot at on this film mind you) . i know people are just stupid and truly would be out in the street tipping over cars last night is available on dvd [SEP]

[CLS] well I'll be damned .. the canadians can make a good movie . the world is coming to an end . we do n't know why or how , but apparently there is no way to stop it the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations [] yet for a handful of toronto citizens , life goes on as they are [] going crazy or attacking people in the streets . i am not sure if this is what the movie is about , but i am sure that these activities they [] always wanted to do , some gathering with family and friends , and others just seeking to be alone [] these people 's lives however all intersect during their final six weeks [] writer - director - star den mckellar has crafted a highly unique and emotional film . all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth . craig (calum keltz remnie) tries to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself but is n't having much success [] even minor characters keep popping up where you least expect them to , tying everyone even closer [] things seem a little hoky toward the beginning of the film , but ultimately everything comes together nicely (although [] is not a happy film .) the most interesting character is greg (william fichtner) who is a bit of an unexpected human and very weird performances , particularly from sandra oh , whose character is just trying to get home to her husband before the end [] has absolutely no problem that the reason for the end of the world is never given , nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway [] but i do wonder why the sun never sets , come midnight , the sun is still shining brightly , maybe the sun is crashing into the earth . . who knows also , it 's comforting to know that in mankind 's final moments on the planet , people will still gang up on the street for [] sheer purpose of pushing over a car or a bus [] that is not a shot at this film mind you . . i know people are just stupid and truly would be out in the street tipping over cars) last night is available on dvd [SEP]



[CLS] well i 'll be damned . . . the canadians can make a good movie . the world is coming to an end . we do n't know why or how , but apparently there is no way to stop it . the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations . yet for a handful of toronto citizens , life goes on . they are n't going crazy or attacking people in the streets , instead they are simply preparing themselves for the end . . . some engaging in activities they 've always wanted to do , some gathering with family and friends , and others seeking shelter . the world is ending , but they are still interested enough that six hours after dinner , sara da molarha has created a ~~list~~ list ~~and~~ and ~~and~~ and ~~and~~ all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth . craig (calum kilmister remake) tries to fulfill all their sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end , and thanks them for their business , and patrick (mckellar) just wants to be by himself but is n't having much success , even minor characters keep popping up where you least expect them to , tying everyone even closer , things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it 's not a happy film . . . some moments are understandably gut - wrenching) . the story is enhanced by some unexpected humor very reminiscent of the original , particularly from amanda oil , whose character is just trying to get home to her husband before the end . i have one really small problem that the reason for the end of the world is irrelevant , and does it bother me that the word is crashing in exactly 12 midnight (in tomorrow 's paper) . but i do wonder why the sun never sets . come midnight , the sun is still shining brightly . maybe the sun is crashing into the earth . . . who knows . also , it 's comforting to know that in mankind 's final moments on the planet , people will still gang up on the street for the sheer purpose of pushing over a car or a bus (that 's not a shot at this film mind you . . . i know people are just stupid and truly would be out in the street tipping over cars) . last night is available on [dvd](#) [sep](#)

[CLS] well i ' ll be damned . . . the canadians can make a good movie . the world is coming to an end . we do n ' t know why or how , but apparently there is no way to stop it . the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations , yet for a handful of toronto citizens , life goes on . they are n ' t going crazy or attacking people in the streets , instead they are simply preparing themselves for the end . . . some engaging in activities they ' ve always wanted to do , some gathering with family and friends , and others seeking out a simple example of life ' s little pleasures . craig (keith urban) and his sick but witty director + star daughter have crafted a highly unique and emotional film . if the main characters are compelling as they try and do whatever it is they need to do on their last night on earth . craig (keith urban) tries to rectify all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be with his b .f. but is n ' t having much success . even minor characters keep popping up where you least expect them to , tying everyone even closer . things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it ' s not a happy film . . . some moments are understandably gut - wrenching) . the story is enhanced by some unexpected humour and very real emotion . particularly from sandra oh , whose character is just trying to get home to her husband before the end . i was absolutely not problems with the reason the end of the world is never given . nor does it bother me that the world is ending at exactly 12 midnight . in fact , i enjoyed it . but i do wonder why the sun never sets . come midnight , the sun is still shining brightly . maybe the sun is crashing and the earth . . . who knows . also , it ' s comforting to know that in mankind ' s final moments on the planet , people will still gang up on the street for the sheer purpose of pushing over a car or a bus (that ' s not a shot at this film mind you . i know people are just stupid and truly would be out in the street tipping over cars . last night is available on dvd **SEP**

[CLS] well i 'll be damned . . . the canadians can make a good movie . the world is coming to an end . we do n't know why or how , but apparently there is no way to stop it . the world has had this information for months , as most of the rioting and other assualt chaos has passed and governments have shut down operations , yet for a handful of toronto citizens , life goes on . they are n't going crazy or attacking people in the streets . instead they are simply preparing themselves for the end . . . some engaging in activities they 've always wanted to do , . . . some gathering with family and friends , and others just seeking to be alone . . . sandra oh 's directorial debut , *crash* (dir . george slater) is a honest , heartfelt , director + star sandra mckellar has crafted a highly unique and emotional film . all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth . craig (calum kenton rennie) tries to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself but is n't having much success . even minor characters keep popping up where you least expect them to , trying everyone even closer , things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it 's not a happy film . . . some moments are understandably gut - wrenching) . the story is enhanced by some unexpected humor and very realistic situations , particularly from sandra oh , whose character is just trying to get home to her parents before the end . i have absolutely no problem with that . the reason the end of the world is never given , is to do both better and that the world is ending at exactly 12 midnight (or whenever) . but i do wonder why the sun is crashing into the earth . . . who knows , the sun is still shining brightly . maybe the sun is crashing into the earth . . . who knows , also , it 's comforting to know that in mankind 's final moments on the planet , people will still gang up on the street for the sheer pleasure of crushing over a car or a bus that 's not a shot at this film *mind you* . . . i know people are just stupid and truly would be out in the street tipping over cars) . last night is available on dvd **SEED**



CLOSING well i 'll be damned the canadians can make a good movie . the world is coming to an end , we don ' t know why or how , but apparently there is no way to stop it . the movie starts off with a bunch of people as most of the rich and famous , and some chosen ones based on governments have shut down operations for the handful of **survivors** . life goes on , they are n 't going crazy or attacking people in the streets , instead they 're simply preparing themselves for the end , ... some engaging in activities they 've always wanted to do , some gathering with family and friends , and others just seeking to be alone , these people 's lives however all intersect during their final six hours . writer + director + star don mckellar has crafted a highly unique and emotional film . all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth . craig (callum kent remie) tries to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself but is n 't having much success . even minor characters keep popping up where you least expect them to , tying everyone even closer , things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although it 's not a happy film) . the acting is superb , the direction is excellent , the editing is great , the score is outstanding , unexpected humor and very realistic performances , particularly from sandra oh , whose character is just trying to get home to her husband before the end . i have absolutely no problem that the reason for the end of the world is never given , nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway) , but i do wonder why the sun never sets , come midnight , the sun is still shining brightly , maybe the sun is crashing into the earth ... who knows , also , it 's comforting to know that in mankind 's final moments on the planet , people will still gear up on the street for the sheer purpose of pushing over a car or a bus (that 's not a shot at the film mind you) . i know people are just stupid and truly would be out in the street tipping over cars) last night is available on dvd [SEP]

[CLS will] be damned... the canadians can make a good movie. the world is coming to an end... we do know why or how, but apparently there is no way to stop it. i think that's what i like about the movie... as much as the riding of horses, asserted she has been and governments have what she wants. for example, a lot of toronto citizens... life goes on, they are n't going crazy or attacking people in the streets, instead they are simply preparing themselves for the end... some engage in activities they've always wanted to do, some gathering with family and friends, and others just seeking to be alone, these people's lives however all intersect during their final six hours. writer - director - star dene mickellar has crafted a highly unique and emotional film... all of the main characters are compelling as they try and do whatever it is they need to do on their last night on earth. craig (calum kent remie) tries to fulfill all his sexual fantasies, a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business, and patrick (mickellar) just wants to be by himself and is n't having much success... even minor characters keep popping up where you least expect them to, tying everyone even closer, things seemed a little hokey towards the beginning of the film, but ultimately everything comes together nicely (although it's not a happy ending). i would say it's probably a good movie, it's got a great cast, it's got some unexpected humor and very realistic performances... particularly from sandra oh, whose character is just trying to get home to her husband before the end, i have absolutely no problem that the reason for the end of the world is never given, nor does it bother me that the word that is ending at exactly 12 midnight (in toronto anyway), but i do wonder why the sun never sets come midnight, the sun is still shining brightly, maybe the sun is crashing and the earth... who knows, also, it's comforting to know that in mankind's final moments on the planet, people will still hang up on the street for the sheer purpose of pushing over a car a bus (that's not a shot at this film mind you)... i know people are just stupid and truly would be out in the street tipping over cars last night are available on dvd **[SOP](#)**.

[CLS] well i'll be damned . . . the canadians can make a good movie . the world is coming to an end , we do n't know why or how , but apparently there is no way to stop it . and i would have to say that this , as most of the riotous comedies for a handful of toronto citizens , life goes on . they are n't going crazy or attacking people in the streets , instead they are simply preparing themselves for the end . . . some engaging in activities they 've always wanted to do , some gathering with family and friends , and others just seeking to be alone , these people 's lives however all intersect during their final six hours . writer - director - star dionne mckellar has crafted a highly unique and emotional film , all of the main characters are compelling as they try and do whatever it is they need to do on their last night in earth . craig (callum kent rennie) tries to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself but is n't having much success . even minor characters keep popping up where you least expect them to , tying everyone even closer , sometimes a little hoytowards the beginning of the film , but ultimately everything comes together nicely (although it 's not a happy film .) the cast is absolutely wonderful , from the lead to the supporting roles , there is unexpected humor and very realistic performances , particularly from sandra oh , whose character is just trying to get home to her husband before the end , i have absolutely no problem that the reason for the end of the world is never given , nor does it bother me that the world is ending at exactly 12 midnight (in toronto anyway) . but i do wonder why the sun never sets , come midnight , the sun is still shining brightly . maybe the sun is crashing into the earth . who knows , also , it 's comforting to know that in mankind 's final moments on the planet , people will still gang up on the street for the sheer pleasure of pushing over a car or a bus (that 's not a shot at this film mind you . . . i know people are really stupid and truly would be out in the street tipping over cars) . la night is available on dvd **SEP**



[CLS] well i'll be damned . . . the canadians can make a good movie , the world is coming to an end , we do n't know why or how , but apparently there is no way to stop it if the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations [yet for a handful of toronto citizens , life goes on , they are n't going crazy or attacking people in the streets , instead they are simply preparing themselves for the end . . . some , engaging in activities they 've always wanted to do , some gathering with family and friends , and others just seeking to be alone] these people 's lives however all interest during their final days [well i'm writing this in 2012 , so i'm not sure if this is still true , but at one point in time , the main characters are compelled as they try to do and whatever they need to do on their last night on earth , craig (calum kilmister) tries to fulfill all their sexual fantasies , a gas company employee (david cranebush) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself but is n't having much success even minor characters keep popping up where you least expect them to , tying everyone even closer] things seemed a little hokey towards the beginning of the film , but ultimately everything comes together nicely (although i 'm not a happy film . . . some moments are understandably gut - wrenching) the story is enhanced by some unexpected humor and very realistic performances , particularly from sandra oh , whose character is trying to get home to her husband before the end [i have already mentioned that the reason for the end of the world is never given , but it is either that the world is exploding or that 12 midnight is approaching , but i don 't understand why the sun never sets , come midnight , the sun is still shining brightly - maybe the sun is crashing into the earth . . . who knows , also , it 's comforting to know that in mankind 's final moments on the planet , people will still gang up on the street for the sheer purpose of pushing over a car or a bus (that 's not shot up on the street mind you . . . i know people are just stupid and truly would be out in the street tipping over cars) last night is available on dvd [SEP]

[CLS] well i ' ll be damned . . . the canadians can make a good movie . the world is coming to an end . we do n ' t know why or how , but apparently there is no way to stop it . the world has had this information for months , as most of the rioting and other assorted chaos has passed and governments have shut down operations , yet for a handful of toronto citizens , life goes on . they are n ' t going crazy or attacking people in the streets , instead they are simply preparing themselves for the end . . . some engaging in activities they ' ve always wanted to do , some gathering with family and friends , and others just seeking to be alone . these people ' s lives however all intersect during their search for answers . the film is a mix of science fiction and drama , with a dash of emotionalism . all of the main characters are compelling , the way they try and do whatever it is they need to do on their last night on earth . craig (calum keith reinie) comes over to fulfill all his sexual fantasies , a gas company employee (david cronenberg) calls every customer letting them know the gas will be flowing until the very end and thanks them for their business , and patrick (mckellar) just wants to be by himself but is n ' t having much success . even minor characters keep popping up where you least expect them to , tying everyone even closer . things seemed a little hokey toward the beginning of the film , but ultimately everything comes together nicely (although it ' s not a happy film . . . some moments are understandably gut - wrenching) . the story is enhanced by some unexpected humor and very realistic performances , particularly from sandra oh , whose character is just trying to get home to her husband before the end . i have absolutely no doubt that this will be one of the end of the world movies never given . . . and does bother me that the movie ends with the entire world being destroyed . but i do understand why the sun never sets come midnight , the sun is still shining brightly , maybe the sun is crashing into the earth . . . who knows . also , it ' s comforting to know that in mankind ' s final moments on the planet , people will still hang up on the street for the sheer purpose of passing over a car or a bus (that ' s not a shot at this film mind you . i know people are just stupid and truly would be out in the street tipping over cars . last night is available on dvd [SAP](#)



Figure 27: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **accurate**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention.

[CLS] armageddon, in itself, symbolizes everything that is wrong in modern human history; stories have been replaced with special effects; character development gets overshadowed by bad dialogue; plotting consists of a bunch of shit getting blown up. armageddon is as stupid, as long-winded, as shallow as anyone you'll see come out this summer. it's just as bad as every other movie, but it's loved more frequently because of [REDACTED], believe me. i just as shocked as you are - hell, i do n't even know why i went to see it in the first place, the reviews were so annoying that i predicted this was going to be the worst film of the year, or at least in the running ("i'm sorry, it's..."), but "somebody dial 911 right now!" is it? not quite the tagging that's going to sell a movie, is it? n't too wise either to market the film using the movie's stupidest lines ("beam me up scotty" - yeahhh, that sure is great **PRIMING**...), i mean, let's face it: armageddon's previous reviews are the truman show's as being some of the worst of the year, neither of them even come close to doing their respective films justice, of course, you all know the story: when the earth is threatened with total annihilation via an asteroid the size of texas, nasa calls in the us' top oil drillers (!) to go into space (!) and implant a nuclear device eight hundred and someodd feet into the asteroid (!). in the course of all this mayhem we are introduced to some interesting- and not so interesting- characters, belonging to the former group is rockhound (steve buscemi), a horkey little wromizing genius who's always full of wisecracks, even when flying into space at a huge amount of g's., also, there's the always cool - and hell billy bob thornton as dan truman, the bigwig nasa who recruits all the drillers, he kind of reminded me of ed harris in apollo 13, only without the intensity and harry stiles to deliver, then on the flip side of the coin is the tired, contrived character of harry stampler (bruce willis), the flip side of the whole movie employing with annoying accent i can't quite place), the leader of the pack as well as live tyler and ben affleck [SEP]

[CLS] armageddon, in itself, symbolizes everything that is wrong with modern filmmaking, stories have been replaced with special effects; character development gets overshadowed by bad dialogue; plotting consists of killing off a living being, np. [CLS] armageddon is stupid, as loud and as shallow as anything you'll see coming from hollywood. i may have seen it, but i don't remember it. i loved the freakin' movie though, i believe me, i'm just as shallow as you are. i didn't even know why i wanted to see it in the first place, the previews were so annoying that i predicted this was going to be the worst film of the year, or at least in the running. i'm sorry, but ... somebody dial 911 !!! !!!!! is it a quite the tagging that's going to call a movie, it is ?? a wise toe either to market the film using the movie's stupidest lines (" beam me up scotty " - yeah, that sure is great writing, ...), i mean, let's face it : armageddon's previews rival the truman show's as being some of the worst of the year. neither of them even come close to doing their respective films justice, of course, you all know the story, when the earth is threatened with total annihilation via an asteroid the size of texas, nasa calls in the us' s top oil drillers (!) to go into space (!) and implant a nuclear device eight - hundred and someodd feet into the asteroid (!). in the coarse of all this mayhem, we are introduced to some interesting - and not so interesting - characters, belonging to the former group is rockhound (steve buscemi), a horry little wanizing genius who's always full of wisecracks , even when flying into space at a huge amount of g's , also, there's the always cool - as - hell billy bob thornton as dr truman , the bigwig at nasa who recruits all the drillers . he kind of reminded me of ed haris in apollo 13 , only without the intensity and great lines to deliver , then on the flip side of the coin is the tired , contrived character of harry stamper (bruce willis) , who does the whole movie breathing with a annoying accent i can't quite place), the leader of the pack as well as lyer tyler and ben affleck [SEP]



Figure 28: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention. (k) rollout.

[CLS] the premise is simple , if not bizarre , a mad scientist (trace bealeus as dr raymond forrestor) launches an average - joe (michael j. nelson as milo neeson) into space where he has to subject himself to the most horrendous movies ever made . why ? it 's torturous , it 's maniacal , and it 's just plain fun based on the cast , favorite critics , and the sheer amount of movie titles mentioned in the plot , i would guess as for being maniacal and just plain fun , milo nelson as dr raymond forrestor is the one - bone shaped spacecraft . milo nelson plays his days as any young man would dream of indulging in sarcasm and horseplay , and seeing quite a few movies , the catch is , these movies are n 't the movies he chooses , but retched examples of film - making chosen specifically by dr. forrestor in an attempt to break mike 's will to live . dr. forrestor is convinced that one too many b - movies is all it will take to ruin a man , but with a couple of wise - cracking puppet bunnies (tom servo , voiced by kenny murphy , and crowder t. robot , voiced by beauregard) , the torture becomes somewhat of a honorary party for all that is wrong in the world of cheap cinema . the purpose behind mst3k is to exploit some of the worst films known (even if by very few of us) to man , we watch as the silhouettes of mst3k , tom , and crow sit in a darkened theater poking fun at the movies going on screen , and in this , it 's the 1954 sci - fi film this island earth , the show does a great job , much like their last work , of bringing the show - downership of their hilarious commentary , the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i 'll explain this one : this island earth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their homeworld , to make mst3k work , the film - within - the - film naturally has to be as horrible as possible , and although the tv - series introduced us to several worse films than this island earth , it 's a bad enough flick to bring about some hysterical cruelty . ms [SEP]

[CLS] the premise is simple, if not bizarre, a man scientist (trout beauhien as dr. clayton forrester) launches an average . Joe (michael j. nelson as milo nelson) into space where he forces his subject to watch the most horrendous movies ever made. why ? it's torturous , it's macabre...and it's a plain fun movie based on the camp - favorite called "the island of dr. moreau". the movie is set in a tortuous prison, but as for being macabre and just plain fun , it foats the bill quite nicely . miles , a dog - shaped spacecraft , spends his days as any young man would dream - indulging in sarcasm and horseplay , and seeing quite a few movies. the catch is , these movies are n't the movies he chooses , but retched examples of film , making chosen specifically by dr. forrester in an attempt to break mile's will to live . dr. forrester is convinced that one too many b - movies is all will take to ruin a man , but with a couple of wise - cracking puppet buddies (tom servo , voiced by kevin murphy , and crow t. robot , voiced by beaureli), the torture becomes somewhat of a honorary party for all that is wrong in the world of cheezy cinema . the purpose behind mst3k is to exploit some of the worst films known (even if by very few of us) to man , we watch as the silhouette of mile's , tom , and crow sit in a darkened theater poking fun at the movie going before them . in this case , it's a 1954 sci - fi film titled "the island earth" . we basically watch the movie and then immediately go into the land of eavesdropping on their hilarious commentary . the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i'll explain this one . this island earth is a tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their home planet , to make mst3k work [REDACTED] film - intrusively - the - film naturally has to be as horrible as possible , and although the tv - series introduced us to several worse films than this island earth , it's a bad enough flick to bring about some hysterical cruelty . ms [SEP]

[CLS] the premise is simple , if not bizarre , a mad scientist (trace beaumie as dr. clayton forrester) launches an average - joe (michael j . nelson as mike nelson) into space where his forces has subjected to watch the most horrendous movies ever made , why ? because he is bored and it 's fun ! and it 's just plain fun , there 's plenty of plotless , but television series as mystery stories there 's plenty , the movie is n 't torture , but as for being maniacal and just plain fun , it 's got the ball quite nicely . mike nelson , on a dog - bone shaped spacecraft , spends his days as any young man would dream - indulging in sarcasm and horseplay , and seeing quite a few movies , the catch is , these movies are n 't the movies he chooses , but rather examples of film - making chosen specifically by dr. forrester in an attempt to break mike 's will to live . dr. forrester is convinced that one too many b - movies is all it will take to ruin a man , but with a couple of wise - cracking puppet buddies (tom servo , voiced by kevin murphy , and crow t. robot , voiced by beaumie) , the torture becomes somewhat of a honorary party for all that is wrong in the world of cheap cinema . the purpose behind *mst3k* is to exploit some of the worst films known (even if by very few of us) to make us watch at least one of them , and if we do , we 'll be entertained . the show is also a great excuse to go on before them , in this case , it 's the 1964 sci - fi film *this island earth* . we basically watch as our three leads watch , only we get the pleasure of eavesdropping on their hilarious commentary , the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i 'll explain this one . this island earth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their home planet , to make *mst3k* work , the film - within the film naturally has to be as horrible as possible , and although the tv - film introduced us to several worse films than this island earth , it 's a bad enough flick to bring about some hysterical cringe . ms [SEP]

(b) [C] the premise is simple, if not bizarre, a mad scientist (trance beaudies as dr clayton forrester) launches an average - joe (michael j. nelson as milo nelson) into space where he forces his subject to watch the most horrendous movie ever made. why? because it's the most不堪入目 (unwatchable) film ever made. why? because it's a television series mystery science theater 3000, the movie is n't tortuous, but as for being maniacal and just plain fun, it foots the bill quite nicely. milo nelson, dressed as a dog - bone shaped spacecraft, spends his days as any young man would dream indulging in sarcasm and horseplay... and seeing quite a few movies. the catch is, these movies are n't the movie he chooses, but rather rextches of film - making chosen specifically by dr. forrester in an attempt to break milo's will to live. dr. forrester is convinced that one too many b - movies is all it will take to ruin a man, but with a couple of wise - cracking puppet buddies (tom servo, voiced by kevin murphy, and crowder t. robot, voiced by beaudies), the torture becomes somewhat of a honorary party for all that is wrong in the world of cheesy cinema. the purpose behind mst3k is to exploit some of the worst films known (even if by very few of us) to make us watch as the movie goes on before them. in this case, it's the 1954 sci - fi film this island earth, we basically watch as our three leads watch, only we get the pleasure of easch earwax, or their hilarious commentary, the plots behind the movies ripped apart are really quite irrelevant, but for the sake of those who might want to know, i'll explain this one: this island earth is that of tale two scientists, a man and a woman, who wind up aboard a spaceship whose crew intends to destroy the earth, together the two fight to survival as well as save their homen planet, to make mst3k work, the film - within - the film naturally has to be as horrible as possible, and although the tv - series introduced us to several weird films from this island earth, it's a bad enough flick to bring about some hysterical cruelty. ms [SEP]

[CLS] the premise is simple, if not bizarre - a mad scientist (trace beaulieu as dr. clayton forrester) launches an average - joe (michael j. nelson as milo nelson) into space where he finds himself to be watching the most horrendous movies ever made . why ? it's because it is . it's a movie about a man who plays himself in a series of cable television series , mystery solving them . 3000 , the movie is n't tortuous , but as for being maniacal and just plain fun , it looks the bill quite nicely . milo nelson , on a dog - shaped spacecraft , spends his days as any young man would dream - indulging in sarcasm and horseplay , and seeing quite a few movies i catch is , these movies are n't the movies he chooses , but retched examples of film - making chosen specifically by dr. forrester in an attempt to break mike's will to live ↓ dr. forrester is convinced that one too many b - movies is all it will take to ruin a man , but with a couple of wise - cracking puppet buddies (tom servo , voiced by kevin murphy , and crow t. robot , voiced by beaulieu) , the torture becomes somewhat of a honorary party for all that is wrong in the world of cheezy cinema . the purpose behind inst3k is to exploit some of the worst films known (even if by very few of us) to man , we watch as the silliest , most ridiculous , and most horrific movies ever made , and we do it while we are going on before them , in this case , it's the 1954 sci - fi film this island earth . we basically watch as our three leads watch , only we get the pleasure of eavesdropping on their hilarious commentary . the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i'll explain this one , this island earth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth . together the two fight to survive as well as save their home planet , to make inst3k work , the film - within - the - film naturally has to be as horrible as possible , and although the tv series introduced us to several worse films than this island earth , it's a bad enough flick to bring about some hysterical cruelty ; ms [SEP]

[CLS] the premise is simple , if not bizarre , a mad scientist (trace beaumier as dr . clayton forrester) launches an average joe (michael j . nelson as mike nelson) into space where he forces his subject to watch the most horrendous movies ever made . why ? it ' s torturous , it ' s maniacal , and it ' s just plain fun , based on the cult favorite television series mystery science theater 3000 : the movie is n ' t torturous , but as for being maniacal and just plain fun , it finds the cult quite **neat** . mike nelson , on a dog - bone shaped spacecraft , spends his days as any young man would dream - indulging in sarcasm and horseplay , and seeing quite a few movies . the catch is , these movies are n ' t the movie he chooses , but retched examples of film - making chosen specifically by dr . nelson ' s movie nampy ' s . it will take to train a man , but with a palette of wise - cracking puppet babbles (tom servo , gwen , crow , and crow t . robot , voiced by beaumier) , this torture becomes something of a hooray party for all that is wrong in the world of cheapy cinema . the purpose behind mat3k is to exploit some of the worst films known (even if by very few of us) to man , we watch as the silhouettes of mike , tom , and crow sit in a darkened theater poking fun at the movie going on before them , in this case , it ' s the 1954 sci - fi film this island earth . we basically watch as our three leads watch , only we get the pleasure of eavesdropping on their hilarious commentary . the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i ' ll explain this one : this island earth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their home planet . to make mat3k work , the film within - the - him naturally has to be as horrific as possible , and although the tv - series introduced us to several worse films than this island earth , it ' s a bad enough flick to bring about some hysterical cruelty . ms [SEP]

[CLS] the premise is simple , if not bizarre a mad scientist (trace beaulieu as dr clayton forrester) launches an average - joe (michael j . nelson as mike nelson) into space where he forces his subject to watch the most horrendous movies ever made . why ? it 's torturous , it 's maniacal , and it 's just plain fun , based on the cult - favorite cable television series , mystery science theater 3000 : the movie is n 't torturous , but as for being maniacal and just plain fun , it foils the bill quite nicely . mike nelson on a dog - bone shaped spacecraft , spends his days as any young man would dream indulging in sarcasm and horseplay , and seeing quite a few movies . the catch is , these movies are n 't the movies he chooses , but retched examples of film - making chosen specifically for their awfulness . the break [redacted] i will [redacted] give you a forewarning is anything you see on one to many b - movies is not going to be good . with a couple of wise - cracking puppet baddies (tom servo , voiced by kevin nealon , and crowley t . robot , voiced by beaulieu) , the torture becomes somewhat of a haywire party farce , all that is wrong in the world of cheezy cinema . the purpose behind mst3k is to exploit some of the worst films known (even if by very few of us) to man , we watch as the silhouettes of mike , tom , and crow sit in a darkened theater poking fun at the movies going on before them . in this case , it 's the 1954 sci - fi film this island earth , we basically watch as our three leads watch , only we get the pleasure of eavesdropping on their hilarious commentary . the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i 'll explain this one : this island earth is the tale of two scientists , a man and a woman , who wind up surviving a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their planet . to make mst3k work , the him - within - the - him naturally has to be as horrible as possible , and although the tv - series introduced us to several worse films than this island earth , it 's a bad enough flick to bring about some hysterical cruelty . ms [SEP]

[CLS] the premise is simple , if not bizarre a mad scientist (trace beaumieu as dr . clayton forrester) launches an average joe (michael j . nelson as mike nelson) into space where he forces his subject to watch the most horrendous movies ever made . why ? it ' s torturous , it ' s maniacal , and it ' s just plain fun . based on the cult - favorite cable television series , mystery science theater 3000 ! the movie is n ' t torturous , but as for being maniacal and just plain fun , it foots the bill quite nicely . mike nelson , on a dog - bone shaped spacecraft , spends his days as any young man would dream - indulging in sarcasm and horseplay , and seeing quite a few movies . the catch is , these movies are n ' t the movies he chooses , but retched examples of film - making chosen specifically by the two main hosts to break mst3k ' s live tv rules . it ' s interesting that the two main hosts are mst3k ' s two lead rulers , and with a couple of wise cracking puppet buddies (tom servo , voiced by karen murphy , and crow t . robot , voiced by beaumieu) , the torture becomes somewhat of a honorary party for all that is wrong in the world of cheap cinema , the purpose behind mst3k is to exploit some of the worst films known (even if by very few of us) to man , we watch as the silhouettes of mike , tom , and crow sit in a darkened theater poking fun at the movie going on before them , in this case , it ' s the 1954 sci - fi film this island earth , we basically watch as our three leads watch , only we get the pleasure of eavesdropping on their hilarious commentary . the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i ' ll explain this one . this island earth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their home planet , to make mst3k work , the film - within the - film naturally has to be as horrible as possible , and although the tv series introduced us to several worse films than this island earth , it ' s a bad enough flick to bring about some hysterical cruelty . ms [SEP]

[CLS] **the premise** is simple , if not bizarre , a mad scientist (trace beauleau as dr . clayton forrester) launches an average - joe (michael j . nelson as mike nelson) into space where he forces his subject to watch the most horrendous movies ever made . why ? it ' s torturous , it ' s maniacal , and it ' s just plain fun . based on the cult - favorite television series , mystery science theater 3000 : the movie is n ' t torturous , but as for being maniacal and just plain fun , it fools the bill quite nicely . mike nelson , on a dog - bone shaped spacecraft , spends his days as any young man would dream - indulging in sarcasm and horseplay , and seeing quite a few movies ; the catch is , these movies are n ' t the movie he chooses , but retched examples of film - making chosen specifically so that dr . forrester can attempt to break adam ' s will to live . dr . forrester is convinced that one day he will break adam ' s will to live , but on the back of a pile of crumpled - looking pupped bathrobes (tommy lee jones) , voiced by kevin mazurra , and now - a - robot , (voiced by baldwin) , the torture becomes something of a homoerotic party for all that is wrong in the world of cheapy cinema . the purpose behind mtak3 is to exploit some of the worst films known (even if by very few of us) to make us watch as the silhouettes of mike , tom , and crow sit in a darkened theater poking fun at the movie going on before them , in this case it ' s only the 1954 sci - fi film this island earth . we basically watch as our three leads watch , it ' s only we get the pleasure of eavesdropping on their hilarious commentary , the plots behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i ' ll explain this one : this island earth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their home planet , to make mtak3 work , the film - within - the - film naturally has to be as horrible as possible , and although the tv - series introduced us to several worse films than this island earth , it ' s a bad enough flick to bring about some hysterical cruelty . [ns SEP]

[CLS] the premise is simple , if not bizarre , a mad scientist (trace beaulieu as dr clayton forrester) launches an average - joe (michael j . nelson as mike nelson) into space where he forces his subject to watch the most horrendous movies ever made . why ? it 's torturous , it 's maniacal , and it 's just plain fun . based on the cult - favorite cable television series , mystery science theater 3000 : the movie is n 't torturous , but as for being maniacal and just plain fun , it foots the bill quite nicely . mike nelson on a dog - bone shaped spacecraft , spends his days as any young man would dream indulging in sarcasm and horseplay , and seeing quite a few movies . the catch is , these movies are n 't the moves he chooses ; but rather examples of film - making chosen specifically by dr forrester in an attempt to break mike 's will to live . dr . forrester is convinced that once too many humans are in it will talk about it . and so , we are given a type of wacky crackin' movie biffle that is controlled by kenny powers , and controlled , robot , voiced by headliner) , the torture becomes somewhat of a planetary party farce all that is wyring in the world of cheesy cinema . the purpose behind mat3k is to exploit some of the worst films known (even if by few of us) to man , we watch as the silhouettes of mike , tom , and crow sit in a darkened theater poking fun at the movies going on before them , in this case , it 's the 1954 sci - fi film this island earth , we basically watch as our three leads laugh , only we get the pleasure of eavesdropping on their hilarious commentary . the plot behind the movies ripped apart are really quite irrelevant , but for the sake of those who might want to know , i 'll explain this one : this island earth is the tale of two scientists , a man and a woman , who wind up aboard a spaceship whose crew intends to destroy the earth , together the two fight to survive as well as save their home planet , to make mat3k work , the film - within - the - film naturally has to be as horrible as possible , and although the tv - series introduced us to several weird cults from this island earth , it 's a bad enough flick to bring about some hysterical cruelty . ms **SEED**

Figure 29: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CE class. (f) GradCAM for the GT class. (g) GradCAM for the CE class. (h) LRP for the GT class. (i) LRP for the CE class. (j) raw-attention

for any groom on the verge of proposing marriage to his girlfriend, there are certain rules that he needs to follow: *firstly*, first he will have with happiness and romance during their courtship; *secondly*, buy her a beautiful ring that glitters as brightly as her eyes, *thirdly*, find the perfect moment and location to propose; *finally*, the groom-wannabe should probably get her a *parental blessing*. *of course*, the last one can be a nightmare - meeting parents is a rite of passage, fraught with unexpected hostilities, bouts of nervousness, and the quality of likelihood, will make it a positive interaction. *but*, if you're lucky, things will go smoothly, *but*, if you're a greg focker (*harmless*), everything will go wrong, and with a name like that, he could easily be a *deniro*. *when* first meets his fiance' *is* his father, jack byrons (*the grinning robert deniro*) - gregg feels overwhelmed and is put on the defensive - when they tell jack that he's a *male mule*, the *incredible* dad shoots back, "not many men in your profession, hub, greg?" *it's* definitely not a good start, but greg is determined to win him over, *and*, *it's* this desire that fuels the movie, he first takes small steps such as agreeing to say grace before dinner, *it* does *n't* matter that he's jewish, if daddy byrons asks him to say grace, *then* *that's* what he's going to do, "oh god... you're *'re* such a good god," *he* moans, his discomfort at trying to force out a simple prayer will make you chuckle, *but* when jack gives him the "*deniro squint*" (*that* familiar, unsettling gaze that gives deniro that aura of invincibility) *in a* **grin**, **grin**, **things** get progressively worse for greg, *and* that's *too* bad because he's a genuinely likable guy with a romantic heart, *eventually*, he begins to try so hard that he starts to messes everything up, committing a host of gaffes that embarrass, humiliates or injure other people, *it's* a never-ending rollercoaster of missteps, miscues, and mistakes, he buys some champagne, but uncorking the bottle leads to disastrous circumstances, *he* tries to find jack's missing cat, *but* his method

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(k)

Figure 30: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention. k) rollout.

[CLS] when you get out of jail, who can kill him," starring ashey judd, tommy lee jones, bruce greenwood, rated r, double jeopardy is lurid, preposterous thriller that is also one of the year's most enjoyable [REDACTED] uncompromisingly brutal, cheerfully anarchic, hyperactive actioner that has a mission and never diverts from it; there is not a moment here where the events on screen do n't have a direct bearing on the plot; once the film gets going it never stops, it has been branded as the female version of the fugitive and that's probably a correct assessment of the plot, but the film itself has little in common with the 1993 andrew davis / harison ford collaboration besides the presence of star tommy lee jones, not even bothering with character introduction, director bruce greenwood lets the gobs of gore pour from the get go and we find the kidnapper, a rather hirsute man, who has been held ransom by his human prey, respectively, a seemingly happy married couple, with a son matthy, age 4, they go out on a sailboat one night, and after a period of some rockin' sex, libby disappears, libby hears a strange noise, wakes up and discovers that she is covered with blood, she follows a red trail to the upper deck, where she finds a knife and, out of astonishment picks it up, at that convenient moment, the coast guard shows up and libby is arrested, her lawyer, a friend, puts up a defense in court, but though we know she is innocent, the evidence against her is too compelling, her friend adopts her son and she goes to prison, once in prison, she makes a phone call to her friend, her friend gives her son the phone, nick walls in the room, little matthy screams "daddy!" the phone goes dead, libby realizes that the man she is imprisoned for is n't even dead, she gets some advice from a prisoner / former lawyer , who tells her that since the state already convicted her of killing her husband, they ca n't convict her of the same crime again, meaning that when she gets paroled she can kill him and they ca n't touch her, after a weirdly short amount of time, she gets out of parole, she is sent to live at a house with other recent parolees, under the command of parole officer travis lehman (tommy lee jones) . she sees out [SEP]

[CLS] when you get out of jail, you can kill him." staring ashley judd , tommy lee jones , bruce greenwood , rated r , double jeopardy is a hard , *pop-art* thriller that's also one of the year's most enjoyable . it's an uncompromisingly brutal , cheerfully anarchic , hyperactive actioner that has a mission and never diverts from it . there is not a moment here when the events on screen do n't have a direct bearing on the plot ; once the film gets going it never stops . it has been branded as the female version of the fugitive and that's probably a correct assessment of plot . but the film itself has little in common with the 1993 andrew davis / harison ford collaboration besides the presence of star tommy lee jones . not even bothered with character introduction , directorial style or floor thesps the pair from the get go seem to have had a brain melt , rather than a brain buster . and kathy bates looks held and hunched , respectively , as a seemingly happy married couple , with a son mattry , age 4 , they go out on a sailboat one night , and after a period of some rockin' sex , they go to sleep . libby hears a strange noise , wakes up and discovers that she is covered with blood . she follows a red trail to the upper deck , where she finds a knife and , out of astonishment , picks it up . at that convenient moment , the coast guard shows up and libby is arrested by her lawyer , a friend , puts up a defense in court , but though we know she is innocent , the evidence against her is too compelling , her friend adopts her son and she goes to prison . once in prison , she makes a phone call to her friend . her friend gives her son the phone , nick walks in the room , little mattry screams " daddy ! " the phone goes dead . libby realizes that the man she is imprisoned for killing is n't even dead . she gets some advice from a prisoner / former lawyer , who tells her that since the state already convicted her of killing her husband , they can n't convict her of the same crime again , meaning that when she gets paroled she can kill him and they can n't touch her , after a weirdly short amount of time , she gets out of parole . she is sent to live at a house with other recent parolees , under the command of parole officer travis leman (tommy lee jones) . she sets out [SEP]



[CLS] when you get out of jail, you can kill him," staring ashy judd, tommy lee jones, bruce greenwood, rated r, double jeopardy [§ 110d, propos 1000], thriller that's also one of the year's most enjoyable. [§ 110d] uncompromisingly brutal, cheerfully anarchic, hyperactive actioner that has a mission and never diverts from it, there is not a moment here when the events on screen do n't have a bearing direct on the plot; once the film gets going it never stops. [§ 110d] has been branded as the female version of the fugitive and that's probably a correct assessment of the plot, but the film itself has little in common with the 1993 andrew cassavetes / harison ford collaboration besides the presence of tommy lee jones, not even bothering with character introduction, director bruce beresford floors the gas pedal from the get-go and never finds the brakes. we meet the fugitive, hank libby, in a dark nick pack room, [§ 110d] ashley judd and bruce greenwood, [§ 110d] a seemingly innocuous couple, a man who goes to sleep in a car, a woman who goes out on a saloon one night, and after a period of a smokin' sex, they go to sleep. libby hears a strange noise, wakes up and discovers that she is covered with blood. she follows a red trail to the upper deck, where she finds a knife and, out of astonishment, picks it up, at that convenient moment, the coast guard shows up and libby is arrested. her lawyer, a partner, puts up a defense in court, but though we know she is innocent, the evidence against her is too compelling. her friend adopts her son and she goes to prison, once in prison, she makes a phone call to her friend, her friend gives her son the phone, nick walks in the room, little matty screams "daddy!" the phone goes dead. libby realizes that the man she is imprisoned for killing is n't even dead, she gets some advice from a prisoner / former lawyer, who tells her that since the state already convicted her of killing her husband, they can't convict her of the same crime again, meaning that when she gets paroled she can kill him and they can't touch her, after a weirdly short amount of time, she gets out of parole. she is sent to live at a house with other recent parolees, under the command of parole officer travis lehman (tommy lee jones). she sets out [SEP]

[CLS] when you get out of jail , you can kill him . " staring ashy judd , tommy lee jones , bruce greenwood , rated r , double jeopardy [■■■■■] [■■■■■] thriller that's also one of the year 's most enjoyable [■■■■■] uncompromisingly brutal , cheerfully anarchic , hyperactive actioner that has a mission and never diverts from it . there is not a moment here where the events on screen do n't have a direct bearing on the plot ; once the film gets going it never stops . [■■■■■] has been lauded as the female version of the fugitive and that 's probably a correct assessment of the plot , but the film itself has little in common with the 1993 andrew carter / harison ford collaboration besides the presence of star tommy lee jones . not even bothering with character introduction , director bruce beresford floors the gas pedal from the get - go and never finds the brakes . rather hastily , libby and nick packard (ashy judd and bruce greenwood , respectively) are whisked off in a pickup truck and driven off into the night . they go out on a sailboat one night , and after a period of some rockin' sex , they go to sleep . libby hears a strange noise , wakes up and discovers that she is covered with blood . she follows a red trail to the upper deck , where she finds a knife and , out of astonishment , picks it up . at that convenient moment the coast guard shows up and libby is arrested by her lawyer , a friend , puts up a defense in court , but though we know she is innocent , the evidence against her is too compelling , her friend adopts her son and she goes to prison . once in prison , she makes a phone call to her friend , her friend gives her son the phone , nick walks in the room , little matryk screams " daddy ! " the phone goes dead . libby realizes that the man she is imprisoned for killing is n't even dead . she gets some advice from a prisoner / former lawyer , who tells her that since the state already convicted her of killing her husband , they can 't convict her of the same crime again , meaning that when she gets paroled she can kill him and they can 't touch her . after a weirdly short amount of time , she gets out of parole . she is sent to live at a house with other recent parolees , under the command of office parole officer travis lehman (tommy lee jones) . she sets out [SEP]

[CLS] when you get out of jail, you can kill him," starring ashley judd , tommy lee jones , bruce greenwood , rated r, double jeopardy , is based on a prequel thriller that's also one of the year's most enjoyable . it's uncompromisingly brutal , cheerfully anarchic , hyperactive actioner that has a mission and never diverts from it . there is not a moment here where the events on screen do n't have a direct bearing on the plot ; once the film gets going it never stops . it has been branded as the female version of the fugitive and that's probably a correct assessment of the plot , but the film itself has little in common with the 1993 andrew davis / harrison ford collaboration besides the presence of star tommy lee jones . not even bothering with character introduction , director bruce beresford floors the gas pedal from the get - go and never finds the brake pedal . rather hasilby , libby and nina **passion** (asliby) and nina are the ones who are more **respective** . the two women are deeply involved in their respective lives . they are on a collision course one night , and after a period of some rockin' sex , they go to sleep . libby hears a strange noise , wakes up and discovers that she is covered with blood , she follows a red trail to the upper deck , where she finds a knife and , out of astonishment , picks it up , at that convenient moment , the coast guard shows up and libby is arrested by her lawyer , a partner , puts up a defense in court , but though we know she is innocent , the evidence against her is too compelling , her friend adopts her son and she goes to prison , once in prison , she makes a phone call to her friend , her friend gives her son the phone , nick walks in the room , little matty screams " daddy ! " the phone goes dead . libby realizes that the man she is imprisoned for killing is n't even dead , she gets some advice from a prisoner / former lawyer , who tells her that since the state already convicted her of killing her husband , they can't convict her of the same crime again meaning that when she gets paroled she can kill him and they can't touch her , after a weirdly short amount of time , she gets out of parole . she is sent to live at a house with other recent parolees , under the command of parole officer travis lehman (tommy lee jones) . she sets out [SETUP]



[CLS] " when you get out of jail, you can kill him. " starring ashley judd , tommy lee jones , bruce greenwood , rated r , double jeopardy is a lurid , preposterous thriller that ' s also one of the year ' s most enjoyable , it ' s an uncompromisingly brutal , cheerfully anarchic , hyperactive actioner that has a mission and never diverts from it : there is not a moment here when the events on screen do n ' t have a direct bearing on the plot ; once the film gets going it never stops . it has been branded as the female version of the fugitive and that ' s probably a correct assessment of the plot , but the film itself has little in common with the 1993 andrew davis / harison ford collaboration besides the presence of star tommy lee jones . not even bothering with character introduction , director bruce tommey foneska goes fast from the get - go and never finds the brakes : we meet , rather hastily , libby and nick parsons (ashley judd and bruce greenwood , respectively) a seemingly happy married couple , with a son mattoy , age 4 . they go to bed . the next morning , libby wakes up to find that she is covered with blood . she follows a red trail to the upper deck , where she finds a knife and , out of astonishment , picks it up , at that convenient moment , the coast guard shows up and libby is arrested by her lawyer , a friend , puts up a defense in court , but though we know she is innocent , the evidence against her is too compelling , her friend adopts her son and she goes to prison . once in prison , she makes a phone call to her friend , her friend gives her son the phone ; nick walks in the room [little mattoy screams " daddy ! "] the phone goes dead . libby realizes that the man she is imprisoned for killing is n ' t ever dead . she gets some advice from a prisoner / former lawyer , who tells her that since the state already convicted her of killing her husband , they ca n ' t convict her of the same crime again , meaning that when she gets paroled she can kill him and they can n ' t touch her , after a weirdly short amount of time , she gets out of parole . she is sent to live at a house with other recent parolees , under the command of parole officer travis lehman (tommy lee jones) . she sets out [SEP]

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[CLS] " when you get out of jail, you can kill him," starring ashley judd, tommy lee jones, bruce greenwood, rated r, double jeopardy [R] [L] [D] [P] [S] [T] thriller that is also one of the year's most enjoyable. [R] [L] [D] [P] [S] [T] uncompromisingly brutal; cheerfully anarchic, hyperactive actioner that has a mission and never diverts from it; there is not a moment here when the events on screen do n't have a direct bearing on the plot; once the film gets going it never stops. [R] has been branded as the female version of the fugitive and that's probably a correct assessment of the plot, but the film itself has little in common with the 1993 andrew davis / harison ford collaboration besides the presence of star tommy lee jones not even bothering with character introduction, director bruce tommey fones gasped from the get - go and never finds the brakes. [R] meets, rather hastily, libby and nick parsons (ashley judd and bruce greenwood, respectively) a slightly happywarried couple, with a son matty, age 4. they go to a park, where matty disappears. [R] follows a red trail to the upper deck, where she finds a knife and, out of astonishment, picks it up, at that convenient moment, the coast guard shows up and libby is arrested by her lawyer, a friend, puts up a defense in court, but though we know she is innocent the evidence against her is too compelling, her friend adopts her son and she goes to prison; once in prison, she makes a phone call to her friend, her friend gives her son the phone, nick walks in the room, little matty screams "daddy!" the phone goes dead, libby realizes that the man she is imprisoned for killing is n't ever dead, she gets some advice from a prisoner / former lawyer, who tells her that since the state already convicted her of killing her husband, they ca n't convict her of the same crime again, meaning that when she gets paroled she can kill him and they can't touch her again, weirdly short amount of time, she gets out of parole, she is sent to live at a house with other repeat offenders, under the command of parole officer travis lehman (tommy lee jones) she sets out [SEP]

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Figure 31: A visualization of the results. For methods that rely on a specific class for propagation, we present both the ground-truth and counter-factual results. The rollout method, as well as the raw attention methods, are class-agnostic. Some words are split into multiple tokens by the BERT tokenizer. (a) Ground truth (**positive** sentiment). Note that the BERT prediction on this sample was **mistaken**. (b) Our method for the ground truth [GT] class. (c) Our method for the counter-factual [CF] class. (d) Partial LRP for the GT class. (e) Partial LRP for the CF class. (f) GradCAM for the GT class. (g) GradCAM for the CF class. (h) LRP for the GT class. (i) LRP for the CF class. (j) raw-attention.