Color coding:
Relative difference vs. Vanilla Bi-LSTM
(green = expected improvement)

	MODEL			dataset imdb			dataset 20News			dataset QQP			dataset Babi-1		
		Indicator	Source of info	PAPER	delta rel%	TEST RU AVG	PAPER	delta rel%	TEST RU AVG	PAPER	delta rel%	TEST RU AVG	PAPER	delta rel%	TEST RU AVG
TABLE 2 Benchmark data	**vanilla lstm**	test accuracy best	evaluate.json	0,895		0,893	0,936		0,908	0,787		0,784	0,991		1,000
		conicity_mean	evaluate.json	0,690		0,602	0,770		0,761	0,590		0,583	0,560		0,766
		conicity_std	evaluate.json	n/avail		0,135	n/avail		0,189	n/avail		0,131	n/avail		0,023
	bi lstm	test accuracy best	evaluate.json		-	0,905		-	0,919		-	0,790		-	0,997
		conicity_mean	evaluate.json		-	0,590		-	0,818		-	0,610		-	0,692
		conicity_std	evaluate.json		-	0,118		-	0,136		-	0,103		-	0,042
	ortho bi lstm	test accuracy best	evaluate.json		-1%	0,893		-4%	0,885		-1%	0,785		0%	1,000
		conicity_mean	evaluate.json		-70%	0,176		-54%	0,373		-44%	0,341		-68%	0,220
		conicity_std	evaluate.json		-	0,045		-	0,156		-	0,068		-	0,055
	diversity bi lstm	test accuracy best	evaluate.json		-1%	0,892		1%	0,924		-1%	0,786		0%	1,000
		conicity_mean	evaluate.json		-76%	0,144		-80%	0,164		-94%	0,035		-93%	0,046
		conicity_std	evaluate.json		-	0,025		-	0,074		-	0,019		-	0,016
FIGURE 3		Indicator	Source of info												
	bi lstm - ATTN	median	importance_ranking_M		-	0,980		-	0,520		-	0,830			0,030
		1st quartile	importance_ranking_M		-	0,670		-	0,520		-	0,380			0,020
		3rd quartile	importance_ranking_M		-	1,000		-	1,000		-	1,000			0,080
	RANDOM	median	importance_ranking_M		-	0,920		-	0,980		-	0,740			0,600
		1st quartile	importance_ranking_M		-	0,920		-	0,980		-	0,740			0,320
		3rd quartile	importance_ranking_M		-	1,000		-	1,000		-	1,000			0,820
	ortho bi lstm - AT	median	importance_ranking_M		-93%	0,070		-52%	0,250		-19%	0,670		-33%	0,020
		1st quartile	importance_ranking_M		-97%	0,020		-92%	0,040		-39%	0,230		-50%	0,010
		3rd quartile	importance_ranking_M		-87%	0,130		-61%	0,390		0%	1,000		-50%	0,040
	RANDOM	median	importance_ranking_M		0%	0,920		-3%	0,950		-15%	0,630		-13%	0,520
		1st quartile	importance_ranking_M		-22%	0,720		-17%	0,810		-15%	0,630		-16%	0,270
		3rd quartile	importance_ranking_M		-3%	0,970		0%	1,000		0%	1,000		-7%	0,760
	diversity bi lstm -	median	importance_ranking_M		-93%	0,070		-88%	0,060		-40%	0,500		-33%	0,020
		1st quartile	importance_ranking_M		-97%	0,020		-94%	0,030		32%	0,500		-50%	0,010
		3rd quartile	importance_ranking_M		-67%	0,330		-87%	0,130		0%	1,000		-50%	0,040
	RANDOM	median	importance_ranking_M		0%	0,920		-8%	0,900		-1%	0,730		-13%	0,520
		1st quartile	importance_ranking_M		-24%	0,700		-27%	0,720		-1%	0,730		-16%	0,270
		3rd quartile	importance_ranking_M		-2%	0,980		-2%	0,980		0%	1,000		-6%	0,770
FIGURE 4		Indicator	Source of info												
Comparison Violin plots visual inspectio	**vanilla lstm - [0.0**	median	Permutation.png	0,16		0,180	0,05		0,020			0,070		-	
	[0.25-0.50]	median	Permutation.png	0,17		0,200	0,15		0,080			0,100			0,820
	[0.50-0.75]	median	Permutation.png	n/appl	-		0,23	-				0,100			0,870
	[0.75-1.00]	median	Permutation.png	n/appl	-		0,28	-				0,100			0,900
	bi lstm - [0.00-0.;	median	Permutation.png		-	0,100		-	0,010		-	0,020		-	
	[0.25-0.50]	median	Permutation.png		-	0,090		-	0,200		-	0,080		-	0,570
	[0.50-0.75]	median	Permutation.png		-			-	0,270		-	0,210		-	0,920
	[0.75-1.00]	median	Permutation.png		-			-	0,730		-	0,430		-	0,970
	ortho bi lstm - [0	median	Permutation.png		330%	0,430		4100%	0,420		-50%	0,010		-	
	[0.25-0.50]	median	Permutation.png		422%	0,470		95%	0,390		0%	0,080		75%	1,000
	[0.50-0.75]	median	Permutation.png		-	0,490		59%	0,430		-10%	0,190		9%	1,000
	[0.75-1.00]	median	Permutation.png		-	0,420		-44%	0,410		-42%	0,250		3%	1,000
	diversity bi lstm -	median	Permutation.png		300%	0,400		4500%	0,460		150%	0,050		-	
	[0.25-0.50]	median	Permutation.png		367%	0,420		135%	0,470		88%	0,150		-	
	[0.50-0.75]	median	Permutation.png		-	0,520		74%	0,470		5%	0,220		-5%	0,870
	[0.75-1.00]	median	Permutation.png		-			-33%	0,490		-23%	0,330		-10%	0,870
TABLE 4		Indicator	Source of info												
Comparison to	**vanilla lstm**	Overall mean Pea	Attn_Gradient_X_val_	0,80		0,863	0,72		0,513	0,19		0,410	0,56		0,959
		Overall mean Pea	Attn_Integrated_Gradi	0,68		0,793	0,65		0,390	-0,06		0,084	0,33		0,785
		Overall mean JS d	Attn_Gradient_X_val_j	0,09		0,080	0,15		0,182	0,15		0,101	0,33		0,120
		Overall mean JS d	Attn_Integrated_Gradi	0,13		0,114	0,21		0,222	0,19		0,148	0,43		0,247
	bi lstm	Overall mean Pea	Attn_Gradient_X_val_			0,817			0,535			0,345			0,867
		Overall mean Pea	Attn_Integrated_Gradi			0,680			0,411			0,018			0,643
		Overall mean JS d	Attn_Gradient_X_val_j			0,091			0,116			0,155			0,210
		Overall mean JS d	Attn_Integrated_Gradi			0,147			0,141			0,213			0,343
	ortho bi lstm	Overall mean Pea	Attn_Gradient_X_val_		14%	0,930		-35%	0,346		32%	0,457		-1%	0,862
		Overall mean Pea	Attn_Integrated_Gradi		25%	0,849		-4%	0,394		1894%	0,359		15%	0,738
		Overall mean JS d	Attn_Gradient_X_val_j		-5%	0,086		258%	0,415		-14%	0,133		-5%	0,199
		Overall mean JS d	Attn_Integrated_Gradi		-29%	0,105		174%	0,386		-31%	0,148		-15%	0,292
	diversity bi lstm	Overall mean Pea	Attn_Gradient_X_val_		11%	0,908		79%	0,960		50%	0,516		-65%	0,307
		Overall mean Pea	Attn_Integrated_Gradi		25%	0,847		114%	0,880		1756%	0,334		-11%	0,571
		Overall mean JS d	Attn_Gradient_X_val_j		19%	0,108		-16%	0,097		-34%	0,103		106%	0,433
		Overall mean JS d	Attn_Integrated_Gradi		-16%	0,124		-23%	0,108		-39%	0,130		5%	0,359