Seeing Things from a Different Angle: Discovering Diverse Perspectives about Claims

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1. Motivation

Many controversial **claims** don't have a *single* correct answer. To respond to such claims, one needs to understand the arguments with respect to the claims from different **perspectives**.

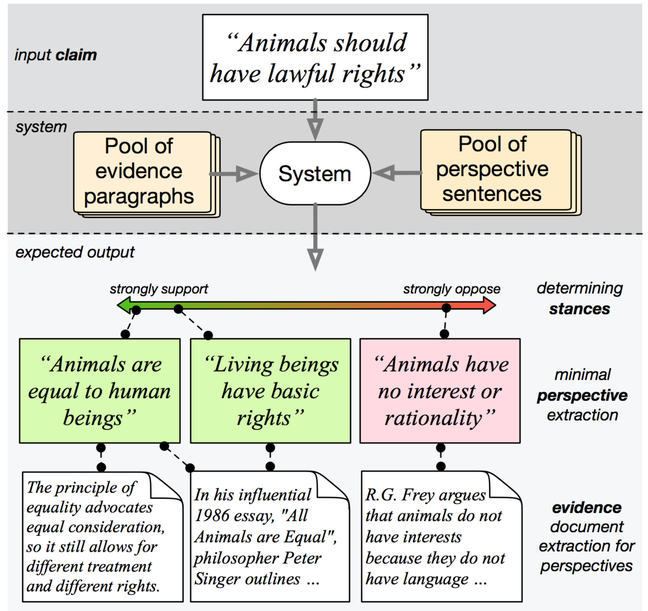
Take the following claim as example, "*Animal should have lawful rights.*"

There exist many ways to respond to the claim. These responses form a spectrum of **perspectives**, each taking a supporting/opposing *stance* with respect to the claim.

Ideally one should find an automatic way of discovering and identifying such perspectives, along with supporting **evidence** paragraphs.

To facilitate research in this direction, we propose the task of ***Substantiated Perspective Discovery***, along with a large-scale, human annotated dataset ***PERSPECTRUM***.

2. Task Definition



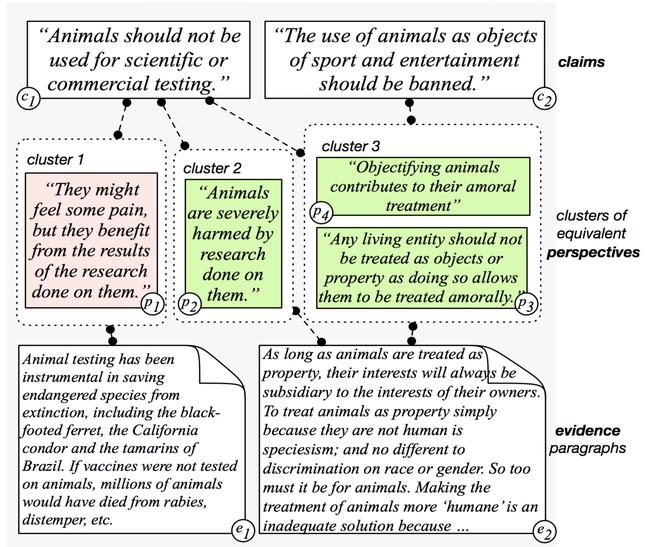
Given an input **claim**, a system is expected to find relevant arguments, or **perspectives** with their stance & evidence. We break down the task into foursubtasks

T1: Find all relevant perspectives to the input claim

T2: Identify the stance of each perspective

T3: Identify if two perspectives are equivalent under the same claim

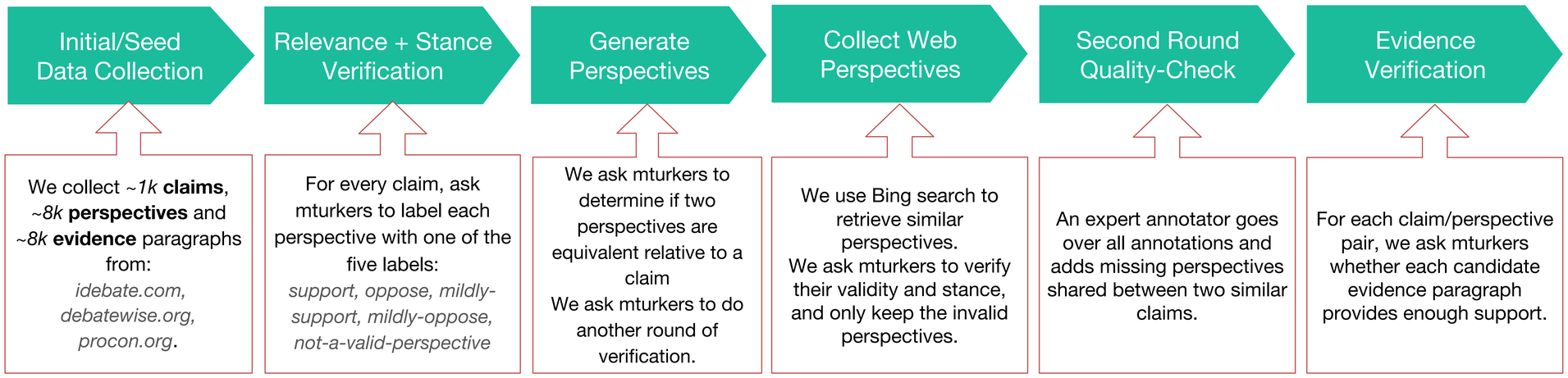
T4: Extract evidence to substantiate the perspectives



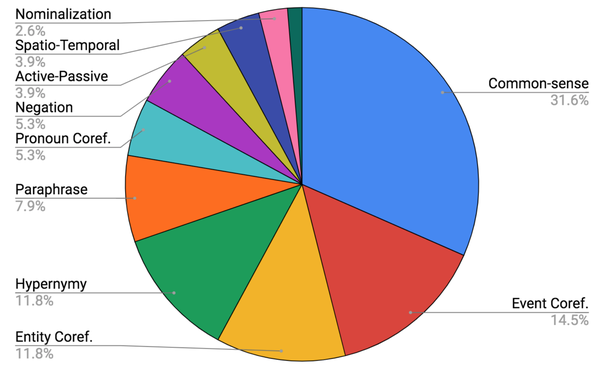
Dataset Statistics

907	controversial **claims**
11,164	arguments, or **perspectives**
8,092	**evidence** paragraphs
13	topics, incl. politics, culture, health, etc.

3. Dataset Collection



4. Challenges



5. Baseline & Results

Always "*Positive*": Always predict "positive" on Stance classification task

IR: Information Retrieval Baseline

IR + BERT: Perspective Stance Classification

Human: Human Performance

	Always "*Positive*"	IR	(IR +) BERT	Hum.
T1 Relevance	-	40.0	**50.8**	72.5
T2 Stance	68.0	-	**70.8**	90.9
T3 Equivalence	-	36.5	**63.7**	83.7
T4 Evidence	-	46.8	**55.7**	60.7
Overall	12.8		**17.5**	40.0

There is a considerable gap between the performances of baselines and humans.

For more details & dataset download
Visit: **http://cogcomp.org/perspectrum**

Acknowledgements

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