



## I. Introduction

In this work, we present a methodology capable of summarizing and stabilizing egocentric videos by extracting the semantic information from the frames. We also describe a dataset collection with several semantically labeled videos and introduce a new smoothness evaluation metric for egocentric videos.

## II. Hyperlapse Methodology

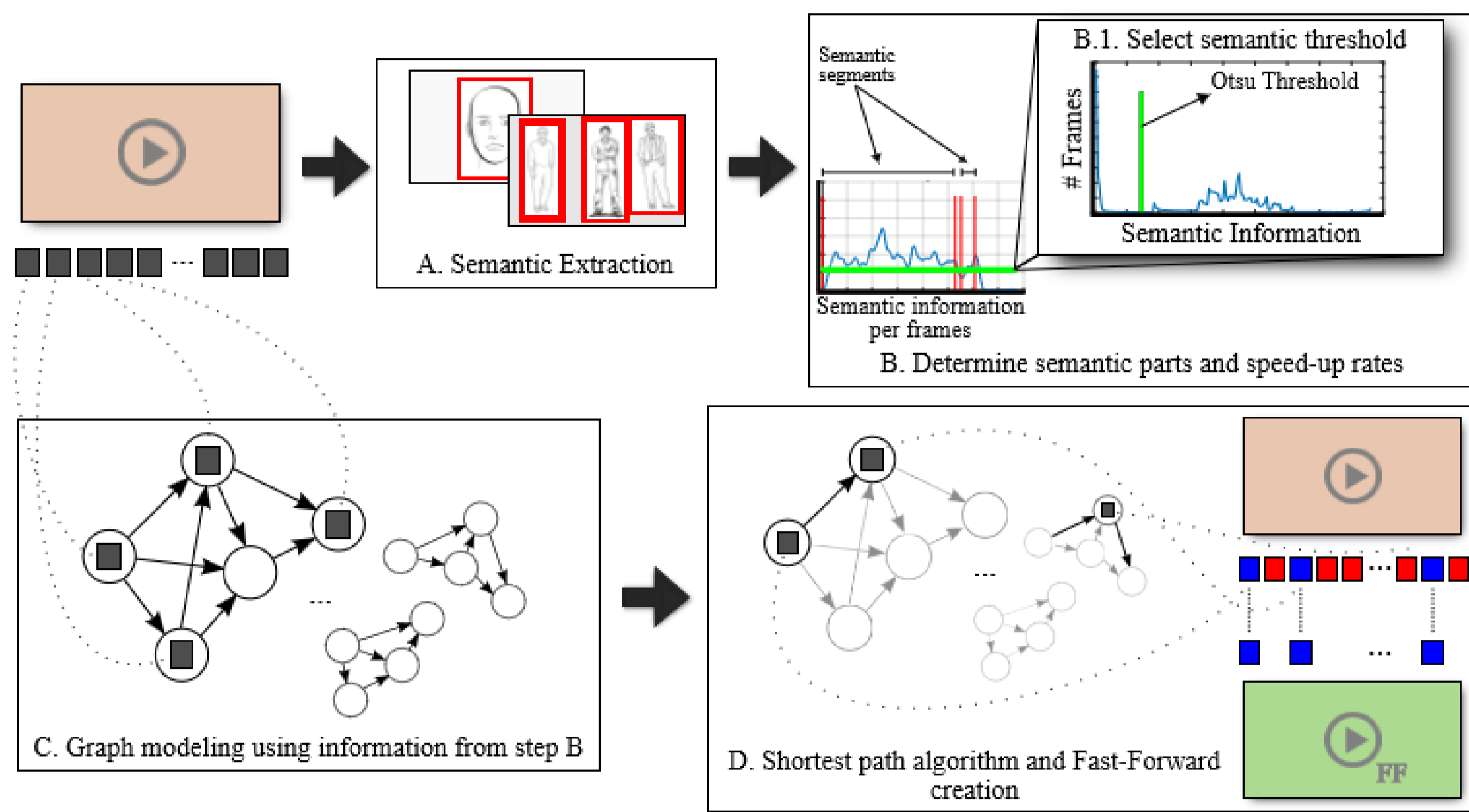


Figure 1: Overview of our fast-forward step.

## III. Stabilization Methodology

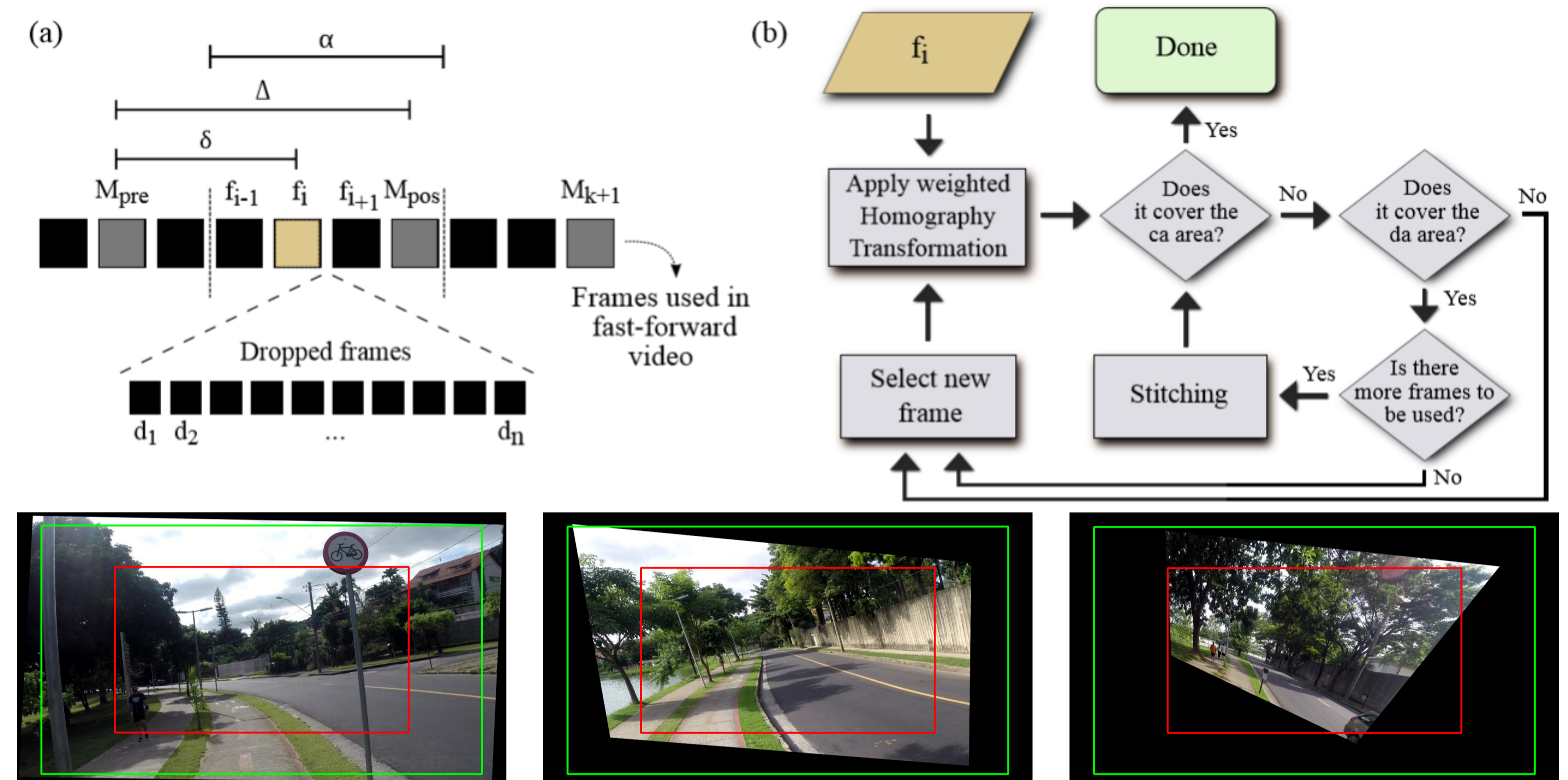


Figure 2: Overview of our stabilization step.

## IV. Dataset



Figure 3: Examples of the new dataset.

## V. Results

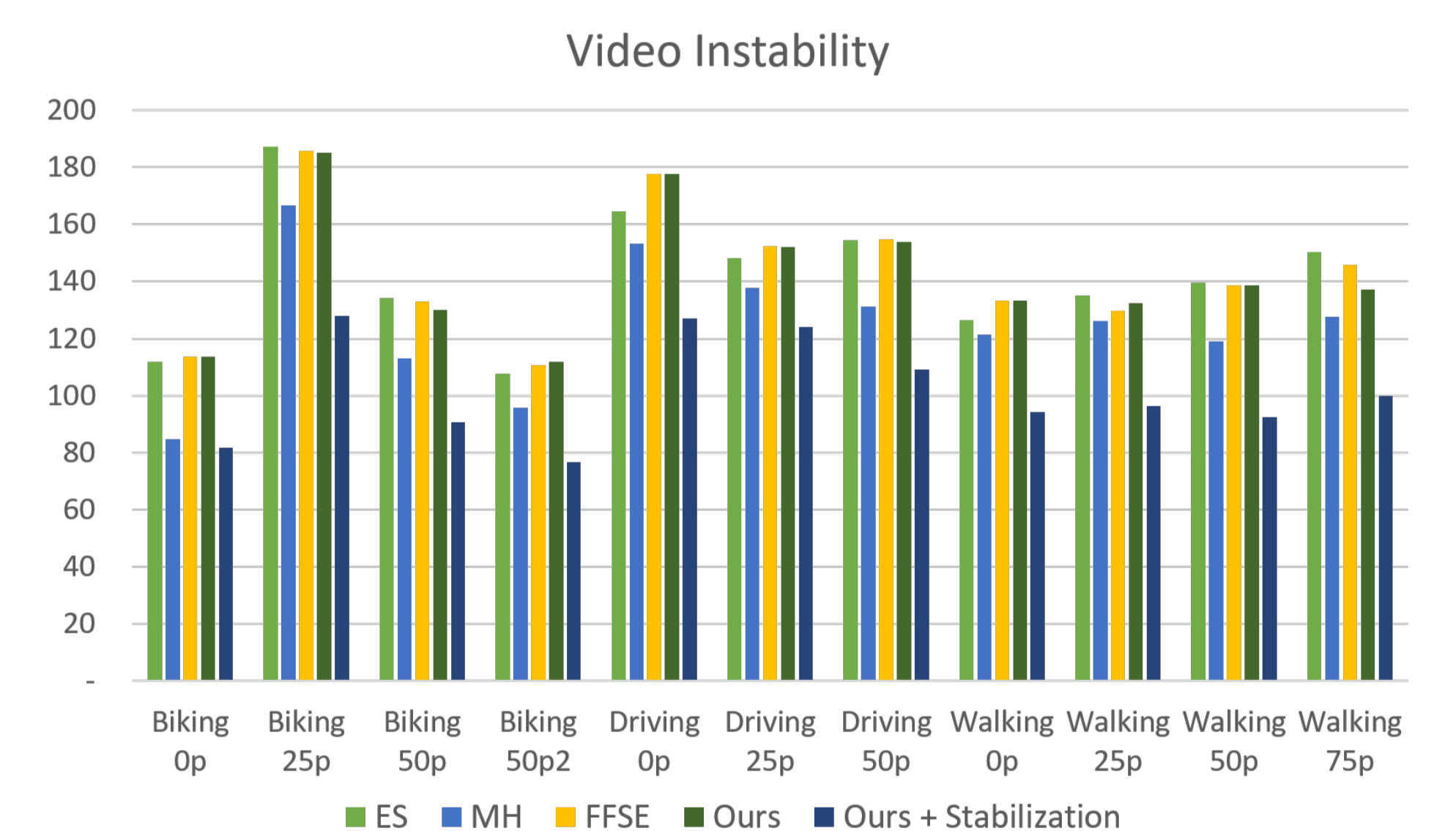
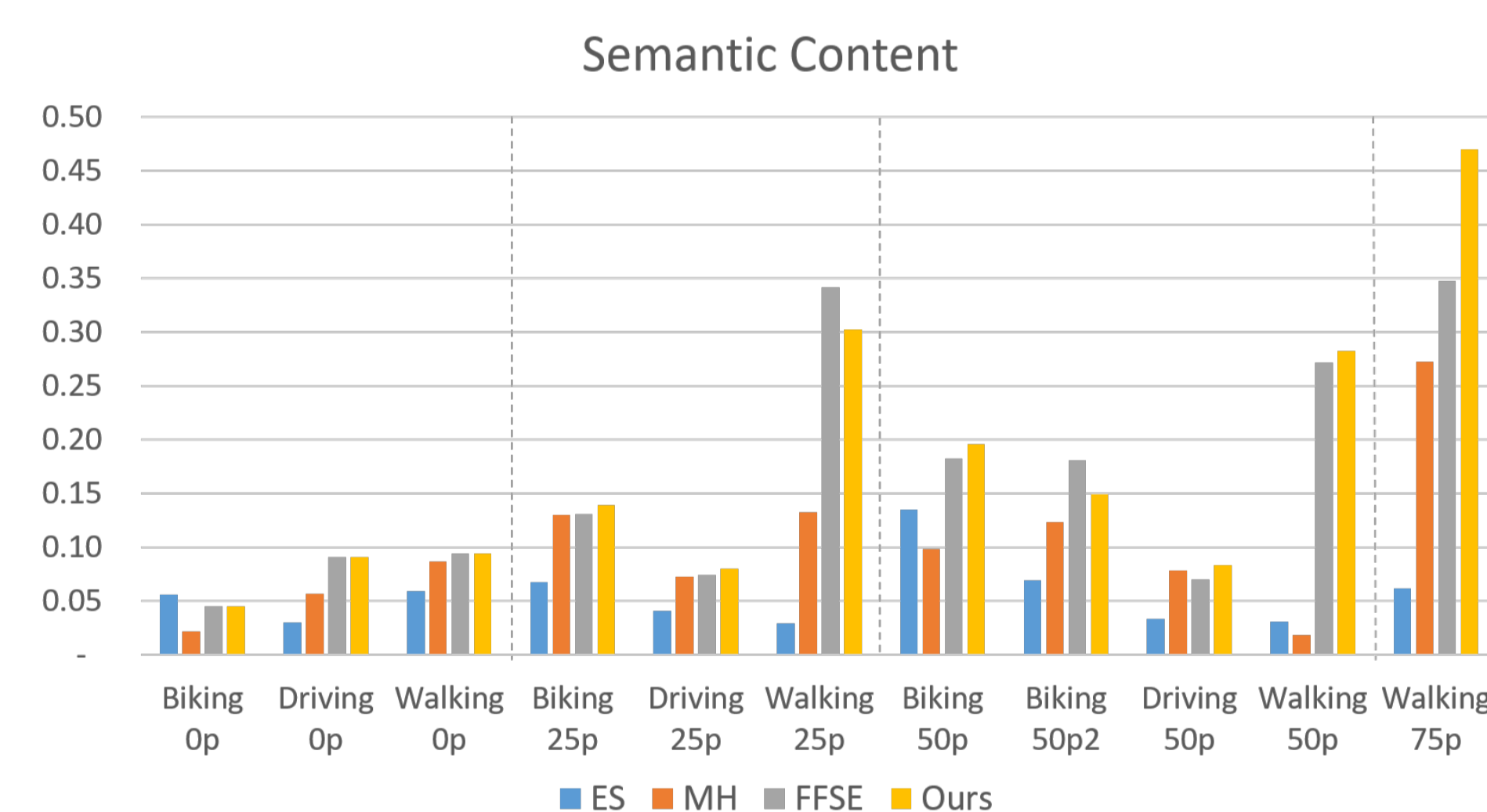


Figure 4: Semantic content in the final video, the values are related to NaïveFaces result, once it selects as much information as possible (left); Instability of the videos using the new smoothness metric as measure (right).

## VI. Conclusion

We proposed a novel method capable of producing smoother egocentric videos with more semantic content. We also introduced a new semantically controlled dataset and a smoothness evaluation metric to test fast-forward egocentric methods. The results showed the superiority of our new approach as far as smoothness and semantic information are concerned.

## References

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## Acknowledgements