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***An acoustic analysis of respondents' expressed conviction: Testing a refinement of telephone surveys in predicting electoral results***

Abstract

Surveys by phone involve the recording of subjects' spoken responses, which are usually consigned by an interviewer in terms of their literal meaning ("yes", "never", politicians name, etc.). However, oral responses also contain acoustic information on speakers' attitudes and affect, for instance, in expressing a degree of conviction. This information is lost and yet may serve to predict behaviours. In a pilot study we found that several measurable acoustic variables of speakers' oral responses show categorical changes in expressing a strong conviction. Our present study applies these findings in analyzing a corpus of recordings from a phone survey on voters' intentions. The corpus consists of approximately 300 interviews realized by *Leger Marketing*. We have two objectives. First, we aim to determine if acoustic aspects of responses denoting conviction on a choice of candidates maintain categorical characteristics as in our pilot study. Second, we want to determine if classification of responses taking into account acoustic variables of conviction enhances the prediction of electoral results compared to responses that are consigned strictly in terms of literal meaning. Our expectation, based on preliminary analyses, is that acoustic analyses will serve to reclassify answers and that this can reduce error margins and improve the rate in predicting electoral results. The acoustic analyses focus on two prominent candidates, where voter intentions were split. The present project will lead to define cut-offs in acoustic variables that can be automatically detected.

**Key words: Political survey, prediction, conviction, acoustic measurements**

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