

# True and False Intentions: A Mental Representational Approach

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Avhandlingen för avläggande av filosofie doktorsexamen i psykologi, som med vederbörligt tillstånd av samhällsvetenskapliga fakultetsstyrelsen vid Göteborgs universitet, kommer att offentligen försvaras fredagen den 17 maj 2019, klockan 10.00 i sal F1, Psykologiska institutionen, Haraldsgatan 1, Göteborg.

Fakultetsopponent: Professor Ronald P. Fisher, Department of Psychology, Florida International University, U.S.

Avhandlingen baseras på följande fyra artiklar:

- I. Calderon, S., Mac Giolla, E., Granhag, P. A., & Ask, K. (2017). Do true and false intentions differ in level of abstraction? A test of construal level theory in deception contexts. *Frontiers in Psychology*, 8(2037). doi:10.3389/fpsyg.2017.02037
- II. Calderon, S., Mac Giolla, E., Ask, K., & Granhag, P. A. (2019). *The mental representation of true and false intentions: A comparison of schema-consistent and schema-inconsistent tasks*. Manuscript under review.
- III. Calderon, S., Mac Giolla, E., Luke, T. J., Warmelink, L., Ask, K., & Granhag, P. A., & Vrij, A. (2019). *Linguistic concreteness of statements of true and false intentions: A Mega-Analysis*. Manuscript submitted for publication.
- IV. Calderon, S., Mac Giolla, E., Ask, K., & Granhag, P. A. (2019). *Subjective probability and the construal level of future events: A replication study of Wakslak, Trope, Liberman, and Alony (2006)*. Manuscript submitted for publication.



## Abstract

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Calderon, S. (2019). *True and False Intentions: A Mental Representational Approach*. Department of Psychology, University of Gothenburg, PO Box 500, SE-405 30 Gothenburg, Sweden.

The study of *true* and *false* intentions is a specific case of deception-detection research. The focus is on how to discriminate between lies and truths about *future* behavior, as opposed to previous deception research that focused almost exclusively on past behavior. The societal value of this research is great, since many legal settings demand that practitioners make credibility judgments of intentions. Here, the focus is specifically on the mental representations of lies and truths. The current thesis proposes and experimentally tests a theoretical model that suggests differences in the mental representation and communication of true and false intentions. It is based on research showing that psychologically distant tasks (e.g., unlikely tasks) are more abstractly represented than psychologically proximal tasks (e.g., likely tasks). The purpose of this model is to help provide powerful predictions about how to differentiate between true and false intentions (e.g., generate novel cues to deceive) and to investigate the possibilities to apply construal level theory to deception contexts. In brief, the model proposes that false intentions should be more abstractly represented than true intentions since they concern unlikely rather than likely future tasks. This difference should in turn be mirrored in language use. Four studies tested this. In **Study I**, participants were asked either to perform or not to perform (but to claim to perform in all cases) simple future tasks while construal level of the tasks was measured, using a behavior segmentation task (Exp. 1), and participants' preference for abstract/concrete descriptions of the tasks (Exp. 2). Failing to support the prediction, liars' and truth tellers' construal levels of the task did not differ. **Study II** again tested the prediction that false intentions are more abstractly represented than true intentions. Schema consistency (schema-consistent vs. schema-inconsistent tasks) was added as a manipulated factor to the tests in Study I. It was predicted that truth tellers would represent the future task, particularly for the schema-inconsistent task, in more concrete terms. Again, no between-group differences were found in level of construal of the task. A meta-analysis across the three experiments in Studies I and II showed an average effect size close to zero (Hedges'  $g = 0.02$ ). In **Study III**, it was tested whether false statements of intentions are more abstractly phrased than true statements of intentions. A computerized content analysis of over 6,000 statements of true and false intentions—using two established measures of linguistic abstraction—revealed no support for the predicted difference. In **Study IV**, two close replication experiments were conducted on the CLT finding at the core of the proposed construal level of intention (CLINT) model: that unlikely future events are more abstractly construed than likely ones. Both attempts failed to replicate this finding. In summary, the results of the thesis lend no support to the prediction that false intentions are represented at a higher, more abstract construal level than true intentions. A possible explanation of the null findings is that the basic CLT assumption may not hold true. The thesis contributes to the burgeoning field of true and false intentions. It also adds to the research field of CLT. It makes a particularly valuable addition to the small number of studies investigating the effect of the subjective likelihood of future tasks on their construal level.

*Keywords:* Deception, true and false intentions, construal level theory, mental representation, abstraction, action identification theory