

# Explaining decisions to engage in agro-biodiversity practices: attitudes, group and social norms and perceived behavioral control.

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## Introduction

Several policies in European agriculture aim at promoting the adoption of farm-level agro-biodiversity measures. Such policies could benefit from research identifying the factors explaining farmers' engagement in such practices. Whereas the theory of planned behavior (TPB) has been used extensively to understand and predict socially significant behaviors, its' use in agriculture is scattered. Further, where it is used, it does not always adhere to the most recent standards of the socio-psychological literature. This paper reports on a research where insights from social identity theory and identity theory are integrated with the TPB to explain willingness to adopt agro-biodiversity practices. Further, the TPB is extended with constructs such as response efficacy, farming orientation and moral norms.

## Method and material

Using a random stratified sample of 100 farmers in the Flemish region of Belgium, the influence of attitudes, social norms, group norms, self-identity, farming orientation, response efficacy on farmers' behavioral intentions to adopt three distinct agro-biodiversity measures is investigated. All latent constructs were measured on multi-item scales, derived from literature and previous research. A qualitative pre-survey identified salient behavioral, normative and control beliefs, which were assessed in the actual questionnaire.

Using factor analysis and reliability analysis, the reliability of all measurement scales was assessed prior to hypothesis testing. All hypotheses were tested using hierarchical regression analysis.

## Results

Reliability analysis showed that different norm concepts exist, thereby confirming research in other domains. Social norms (perceived pressure from any significant others) were clearly distinct from group norms (perceived pressure from the closest reference group i.e. farming population). Further, perceived behavioral control was clearly two-dimensional for some practices, comprising perceived difficulty and perceived controllability, but not for others.

Hierarchical regression analysis revealed that attitude was most significantly explaining behavioral intentions, while the contribution of the different norm concepts differed according to practice. We identified an interaction effect between group norms and social identity, showing that farmers who identify more with the farming population, were more influenced by group norms.

General concepts, defined as e.g. group norm toward biodiversity were much less significant than specific concepts e.g. group norms toward the specific practice.

## Discussion and conclusions

Theoretically, this paper provides some interesting contributions to the use of the TPB in the agri-environmental domain. Scientifically, this paper can increase the efficacy of behavioral intervention policies and extension efforts. For instance, the results show that intervention mechanism that could make farmers more positive about the specific practices could enhance their willingness to adopt. Further, they are more influenced by what their fellow farmers are doing than by traditional environmental pressure groups. Further, the perceived difficulty acts as a barrier to adoption.