

Amélie Gourdon

Doctoral Researcher

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About

Title of PhD: Judging and making decisions based on verbal probabilities: Developmental and social perspectives

Supervisor: [Dr Sarah Beck \(/staff/profiles/psychology/beck-sarah.aspx\)](/staff/profiles/psychology/beck-sarah.aspx)

I am a Judgement and Decision Making researcher. I am particularly interested in how the way we communicate information influences our judgements and decisions, from childhood to adult age.

Biography

After my M.Sc. at the University of Toulouse (France), for which I worked under supervision of Gaëlle Villejoubert and Étienne Mullet, I have been granted a studentship to do my PhD at the University of Birmingham (UK), under supervision of Sarah R. Beck.

I investigate how children and adults understand uncertainty when it is communicated verbally, especially by verbal probabilities (e.g., *It is quite likely*), and therefore how they make decision on this basis. More specifically I investigate if and how children take into account all dimensions of verbal probabilities when judging and deciding. Indeed the specificity of such expressions is that they not only communicate a degree of possibility that an event occurs (i.e., a probabilistic meaning); they also focus the attention of the listener on the outcome or on its absence because of its linguistic dimension (i.e., the directionality). This latter property is further known to frame adults' decision making (Teigen & Brun, 1999).

As part of my M.Sc. I realized a first study comparing 8 year-olds' (French third grade) and young adults' (undergraduates) utilization of verbal probabilities in a game situation. This work indicates that children are able to take into account the level of uncertainty to make decisions but don't judge it as accurately as adults do (see Gourdon & Villejoubert, 2009). These findings were partially replicated with English-speaking children: when judging the level of uncertainty according to verbal probabilities, children use only the directionality. However use of both dimensions in decision-making could not be replicated (see Gourdon & Beck, 2009, SPUDM poster, for possible methodological explanations).

A subsequent interest of mine is the cognitive and linguistic determinants of the weight of those different dimensions. I try to understand why the directionality might be the first dimension taken into account developmentally. Hence I am running adult studies aiming to determine if intrinsic differences between both dimensions (directionality and numerical value) can explain an easier access to directionality, and consequently its framing effect. These studies also allow me to investigate conditions under which the framing effect can be reduced (see Gourdon and Beck, 2010, SEPEX poster;). The main result of these studies is that the framing effect of verbal probabilities can be reduced when decision makers are relieved from the time pressure, but only if the probabilistic meaning of each option is similar.

Finally I developed recently a third set of studies to investigate how different ways of communicating risks (percentages vs. verbal probabilities) might influence the responsibility attributed to the speaker. It was found that using numbers rather than positive verbal probabilities actually does not make a difference. But we also found the final outcome to make a difference: a positive uncertain event not occurring or a negative uncertain event occurring leads to the speaker being judged as more responsible for the final outcome than in the case of a positive uncertain event occurring or a negative uncertain event not occurring. This is despite that the speaker made the same prediction (in a way quite similar as what is observed in the Knobe effect, 2003, also known as side-effect effect). This is also, importantly, in neglect of the probabilities the event was said to have: responsibility judgements were higher if a positive uncertain event did not occur at the end, even if it was announced to have only a low chance. The case of negative verbal probabilities is less clear. In the first study we found that using them leads the speaker to be quite systematically judged as more responsible. In the second one we found that using them to predict positive uncertain events makes the speaker be judged as more responsible than when s/he uses them to predict negative uncertain events. This is counterintuitive to the idea that negative directionality drives the communicatee's attention on the non-occurrence of the outcome and leads us to consider that the negative directionality might be perceived as communicating some wishful thinking.

Research

Risk communication; pragmatics; decision-making; judgement under uncertainty; verbal probabilities

Other activities

I have taught for the following modules: Research methods B (year 1; 2008-2011, lead TA in 2010-11); Higher cognitive functions (year 3; 2010-11); Social cognition (year 3; 2010-11); Developmental psychology (year 2; 2008-09 & 2010-11); Personality psychology (year 2; 2008-09 & 2010-11).

I am a volunteer translator for TED (English to French; 2010-present).

Publications

Gourdon, A. & Beck, S. R. (2010). **[Costs of thinking about verbal probabilities: Is processing directionality easier than processing probabilistic meaning?](http://bham.academia.edu/AmelieGourdon/Talks/20894/Costs_of_thinking_about_verbal_probabilities_Is_processing_directionality_easier_than_processing_probabilistic_meaning?)** (http://bham.academia.edu/AmelieGourdon/Talks/20894/Costs_of_thinking_about_verbal_probabilities_Is_processing_directionality_easier_than_processing_probabilistic_meaning?)
Poster presented at the 8th SEPEX conference, Granada, Spain, 15-17 April.

Gourdon, A. & Beck, S. R. (2009). **[Children's judgements and decisions under verbal uncertainty](http://bham.academia.edu/AmelieGourdon/Talks/7060/Childrens_judgements_and_decisions_under_verbal_uncertainty_y)** (http://bham.academia.edu/AmelieGourdon/Talks/7060/Childrens_judgements_and_decisions_under_verbal_uncertainty_y). Poster presented at the 22nd Subjective Probability, Utility and Decision Making Conference, Rovereto, Italy, 23-27 August.

Gourdon, A., & Villejoubert, G. (2009). A comparison of children and adults' judgements and decisions based on verbal uncertainty statements. In N.A. Taatgen & H. van Rijn (Eds.), *Proceedings of the 31st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society.

