

## Chapter 7

# Jumping to Conclusions Bias

### ABSTRACT

*Jumping to conclusions bias is a tendency to make decisions with a high level of haste, even taking into account that there is little evidence. The jumping to conclusions bias has been widely associated with patients with schizophrenia, above all, in those patients who have positive symptomatology, that is, delusions. This cognitive bias is involved in the onset, maintenance, and relapse of these positive symptoms in schizophrenia. Also, it has been found in other psychological disorders and in healthy populations, above all in individual with schizotypy personality traits. Due to the extensive study on this cognitive bias, a detailed explanation of it will be carried out in relation to certain psychological disorders, especially schizophrenia. Moreover, the chapter describes recent studies with healthy population to see how it affects the decision-making process.*

### INTRODUCTION

The jumping to conclusions would be a cognitive bias where there are data-gathering bias and contrast of hypothesis testing bias. This cognitive bias occurs when there is a tendency to make decisions with a high level of haste, even taking into account, that there is little evidence for this (Huq, Garety & Hemsley, 1988). To test this bias are usually used probabilistic reasoning tasks based on a Bayesian model of probabilistic inference (Moritz & Woodward, 2005; Rubio, Ruíz- Vega, Hernández, Barrigón, Salcedo, Moreno, Gómez, Moritz, & Ferrín, 2011; Juárez Ramos, Rubio, Delpero, Mioni, Stablum, &

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Gómez Milán, 2014; Peters & Garety, 2006; Van Dael, Versmissen, Janssen, Myin-Germeyns, van Os, & Krabbendam, 2006; Delpero, Mioni, Rubio, Juárez Ramos, Gómez Milán, & Stablum, 2015).

For example, it will explain for a better understanding, the classic experiment of probabilistic paradigm carried out by Huq, Garety and Hemsley (1988). These authors showed the existence of jumping to conclusions bias using the task of beads (a task of probabilistic reasoning paradigm) (Phillips & Edwards, 1966). In beads task, each participant is showing two containers (A and B) which contain two different colored balls in a determined proportion like 70/30%. Participants are informed of such proportion and then the containers are removed. They must decide which container has the highest proportion of balls. That is to say, participants have to perform probability judgments about the proportion of those balls.

The task measures the number of balls that the participant needs to make a final decision, and the estimated probability to make a right choice. The results found that patients with schizophrenia with delusions needed to reach a final decision fewer trials than patients with schizophrenia without delusions. Moreover, the patients with schizophrenia with delusions were more overconfident about that their decision would be correct. Huq, Garety and Hemsley (1988) called this bias “jumping to conclusions” because they reached a final decision using little information for that, and had overconfidence in their choices.

As it has been seen in the previous study, the jumping to conclusions bias has been widely associated to patients with schizophrenia, above all, in those patients that have positive symptomatology, that is, delusions (Moritz, Woodward, & Lambert, 2007; Garety, Joyce, Jolley, Emsley, Waller, Kuipers, Bebbington, Fowler, Dunn, & Freeman, 2013). It would be say that is potential candidate endophenotype of psychosis (Garety, Joyce, Jolley, Emsley, Waller, Kuipers, Bebbington, Fowler, Dunn, & Freeman, 2013; see review Fine, Gardner, Craigie, & Gold, 2007). Menon, Mizrahi, and Kapur (2008) found that antipsychotic treatment in patients with schizophrenia did not reduce this bias in them, so this finding support the idea that jumping to conclusions bias would be a trait maker for schizophrenia. Furthermore, it has been found jumping to conclusions in first-degree relatives of patients with schizophrenia (Van Dael, Versmissen, Janssen, Myin-Germeyns, van Os, & Krabbendam, 2006). In addition, jumping to conclusions bias has been investigated in other clinical populations such as obsessive compulsive

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