UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title
It's not My Fault, Your Honor, I'm Only the Enabler

Permalink
https://escholarship.org/uc/item/2n70d6jq

Journal
Proceedings of the Annual Meeting of the Cognitive Science Society, 29(29)

ISSN
1069-7977

Authors
Frosch, Caren A.
Johnson-Laird, P.N.
Cowley, Michelle

Publication Date
2007

Peer reviewed

eScholarship.org Powered by the California Digital Library
University of California

It's not My Fault, Your Honor, I'm Only the Enabler

Caren A. Frosch (c.frosch@reading.ac.uk)
School of Psychology, University of Reading, RG6 6AL, UK

P. N. Johnson-Laird (phil@princeton.edu)
Department of Psychology, Princeton University, NJ 08540, USA

Michelle Cowley (m.cowley@soton.ac.uk)
School of Social Sciences, University of Southampton, SO17 1BG, UK

Keywords: causes; enabling conditions; law.

Introduction

According to the mental model theory, causes and enablers differ in meaning, and therefore in their logical consequences (Goldvarg & Johnson-Laird, 2001). They are consistent with different possibilities. Recent psychological studies have argued to the contrary, and suggested that linguistic cues guide this distinction (Kuhnmünch & Beller, 2005). The issue is important because neither British nor American law recognizes this distinction (e.g., Roberts & Zuckerman, 2004). Yet, in our view, it is central to human conceptions of causality. Hence, in two experiments, we examined our participants' ability to distinguish between causes and enablers in scenarios describing the actions of two agents and a subsequent outcome, e.g.: 'Mary threw a lighted cigarette into a bush. Just as the cigarette was going out, Laura deliberately threw petrol on it. The resulting fire burnt down her neighbor's house.' Here Mary enabled the fire to occur, whereas Laura caused the fire to occur.

Experiments

Method

In Experiment 1 (N = 34), one group answered questions about causers and one group answered questions about enablers. In Experiment 2 (N = 20), each participant answered questions about causers for half of the vignettes and questions about enablers for the other half. We created six vignettes describing criminal events, and, as in the example above, one agent enabled the outcome to occur and one agent caused it to occur. Each vignette occurred in three versions depending on which referent occurred first. Each participant received two instances of each of the orders, which were systematically rotated in the experiments as a whole. The participants' task was to rate on a five point-scale the responsibility of an agent, the extent to which an agent was the causer and the extent to which an agent was an enabler, to assign the number of years to which the agent should go to prison, and to assess the monetary damages that the agent should pay. These ratings occurred in different random orders from one trial to another.

Results and Discussion

Table 1 presents the mean ratings in the two experiments. The participants had no difficulty in distinguishing between causers and enablers. In comparison to enablers, causers were rated as more responsible, more a cause than an enabler of the outcome, liable to go to prison longer, and liable to pay greater damages. All these differences were reliable (using Mann Whitney tests in Experiment 1, U varied from 6 to 32, $p < .001$; and using Wilcoxon tests for Experiment 2, z varied from 3.6 to 3.9, $p < .001$). The order of mention of the agents had no reliable effect on the ratings.

Table 1: Mean ratings for causers and enablers in the experiments

Rating		Experiment 1	Experiment 2
Responsibility 1=not; 5=fully	Cause	4.1	4.3
	Enabler	2.5	2.1
Enable/Cause 1=enable;5=cause	Cause	3.8	4.2
	Enabler	1.9	1.7
Prison 0 – 30 years	Cause	14.7	11.9
	Enabler	3.9	2.0
Damages £0–£100,000	Cause	64.6	62.9
	Enabler	30.9	16.7

In sum, individuals are able to distinguish between those who cause events, and those who enable them to occur. Furthermore, they judge causers to be more responsible, liable for longer prison sentences, and liable to pay larger damages, than enablers.

References

Goldvarg, E., & Johnson-Laird, P. N. (2001). Naive Causality: a mental model theory of causal meaning and reasoning. *Cognitive Science, 25*, 565-610.

Kuhnmünch, G., & Beller, S. (2005). Distinguishing Between Causes and Enabling Conditions-Through Mental Models or Linguistic Cues? *Cognitive Science, 29*, 1077-1090.

Roberts, P., & Zuckerman, A. (2004). *Criminal Evidence*. Oxford: Oxford University Press.