

Gender Differences In Organizational Justice Evaluations: Evidence from fMRI

James H. Dulebohn*, Issidoros Sarinopoulos[†], Donald Conlon[‡],
Robert Davison[‡], Gerry McNamara[‡], Austin Lee[§]

*School of Human Resources and Labor Relations, Michigan State University, East Lansing, MI 48824

[†]Department of Radiology, Michigan State University, East Lansing, MI 48824

[‡]Eli Broad School of Management, Michigan State University, East Lansing, MI 48824

[§]Department of Communication, Michigan State University, East Lansing, MI 48824

Email: dulebohn@msu.edu

Abstract—Organizational justice, or fairness, has represented a primary focus in social and industrial and organizational psychology, and organizational behavior research. Individual fairness evaluations are ubiquitous in social interaction and represent primary predictors of attitudes and behaviors. Researchers have recently demonstrated, through fMRI methods, that fairness evaluations represent a multi-dimensional construct including procedural and distributive justice, which involve different activation in different neural areas [1]. Procedural justice refers to the fairness of processes use to allocate outcomes individuals receive while distributive justice refers to the fairness of the outcomes [2]. One area of fairness research that has resulted in mixed findings is the role of gender in evaluations of procedural and distributive justice. Consequently, an important question is whether females and males experience procedural and distributive justice differently [3].

Prior research methodology examining gender effects in organizational justice has primarily used field and lab studies, retrospective reporting, and paper and pencil assessments of subjects procedural and distributive justice evaluations. In contrast, in this present research we conducted an event related fMRI 24-subject study where we examined gender differences evident in brain activation patterns, during procedural and distributive justice evaluations. As a theoretical basis, we applied the salience and introspective sub-networks underlying appraisal of self-relevant content, described by Schmitz and Johnson [4], to inform expected activation patterns in the social brain network during procedural and distributive justice evaluations.

The studys results demonstrated that gender has a significant influence on brain activation during evaluations of both procedural and distributive justice. In addition, support was found for separate activation patterns consistent with each of the two

subsystems. Specifically, the salience network activated during procedural justice evaluations and the introspective network activated during distributive justice evaluations. Additionally, we found that gender differences in neural activation flowed through to decision behavior following procedural injustice. Implications are presented based on the studys support for gender differences.

ACKNOWLEDGMENT

The authors express their appreciation to James E. Potchen, Thomas G. Cooper, and the Michigan State University Department of Radiology for their generous support of this research and to Scarlett Doyle and Colleen Hammond for their technical scanning assistance.

REFERENCES

- [1] J. H. Dulebohn, D. E. Conlon, I. Sarinopoulos, R. B. Davison, G. McNamara. The biological bases of unfairness: Neurological evidence for the distinctiveness of procedural and distributive justice. *Organizational Behavior and Human Decision Processes*, vol. 110, pp. 140-151, 2009.
- [2] J. H. Dulebohn, G. R. Ferris, G. R. The role of influence tactics on fairness perceptions of performance evaluations. *Academy of Management Journal*, vol. 42, pp. 288-303, 1999.
- [3] Y. Cohen-Charash, P. E. Spector. The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes*, vol. 86, pp. 278-321, 2001.
- [4] T. W. Schmitz, S. C. Johnson. Relevance to self: A brief review and framework of neural systems underlying appraisal. *Neuroscience & Biobehavioral Reviews*, vol. 31, pp. 585-596, 2007.