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Perceptions of questionable research practices in social work and other disciplines

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Perceptions of Questionable Research Practices in Social Work and Other Disciplines

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Outline

▶ Background on research misconduct

▶ Study purpose and method

▶ Overview of descriptive results

▶ Regression results

▶ Limitations

▶ Implications for reducing misconduct

Misconduct in Research

▶ FFP (Falsification, Fabrication, Plagiarism) from 2005 federal regs on misconduct (42 CFR 93, PHS)

▶ QRP (Questionable Research Practices) has evolved since then to describe the rest, generally less serious actions

▶ Fanelli (2009)* meta-analysis found 2% of scientists have admitted to FFP; 34% for QRP

▶ IRB/Human Subjects - only one component of Responsible Conduct of Research (RCR)

* Reference List on final slides

Research on Research Misconduct

- Misconduct *higher* with:

    - Certain personality characteristics (e.g, arrogance, exploitativeness, cynicism) (1)

    - Interpersonal conflict (1)

    - Early career stage (2,7)

    - Perceptions of organizational **in**justice (2),

    - Funding expectations and perceived competition (5, 6)

    - Country/culture of author (e.g., publications rewarded with cash, less peer criticism, less regulatory structure) (7)

- Misconduct *lower* with occupational engagement (1)

- Mixed results on gender (2,7; women lower sometimes)

1 Mumford, M. D., Antes, A. L., Beeler, C., & Caughron, J. J. (2009); Mumford, M. D., Connelly, M. S., Murphy, S. T., Devenport, L. D., Antes, A. L., Brown, R. P., et al. (2009).
2 Martinson, B. C., Anderson, M. S., Crain, A. L., & DeVries, R. (2006); Martinson, B.C., Crain, A.L., Anderson, M.S., & DeVries, R. (2010).
3 Anderson, M. S., Horn, A. S., Risbey, K. R., Ronning, E. A., De Vries, R., & Martinson, B. C. (2007).
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5 Martinson, B. C., Crain, A. L., Anderson, M. S., & DeVries, R. (2009).
6 Anderson, M. S., Ronning, E. A., DeVries, R., & Martinson, B. C. (2007).
7 Fanelli D., Costas R., & Larivière V. (2015).
SEE REFERENCES for full citations.

Research on Research Misconduct - SW

- SW literature on non-human subjects related research misconduct is limited
  - Gibelman and Gelman calling for attention to research integrity (1)
  - Survey of SW researcher attitudes about authorship credit (2)
  - Articles on Plagiarism by students (e.g., 3)
- National Statement on Research Integrity in Social Work (4) –developed from 2006 symposium at the annual meeting; 8 areas, which parallel guidelines from Office of Research Integrity
  - Human Subjects
  - Mentoring
  - Conflicts of Interest
  - Collaborative Science
  - Data Acquisition, Management, Analysis
  - Authorship
  - Peer Review
  - Research Misconduct

1 Gibelman (2002); Gibelman & Gelman (2001; 2005).
2 Apgar & Congress (2005)
3 Collins & Amodeo (2005)
4 CSWE (2007)

Research in Social Work

- Research among Social Workers is increasing
  - Tenure expectations
  - Commitment to enhance empirical knowledge base (practice-based research and evidence-based practice)
  - Shift from process of education for practice to ensuring achievement of specific outcomes (CSWE EPAS)
- Social Workers are less familiar with and are less participatory in the IRB process
- Community-based participatory research does not necessarily fit the regulatory definition of research
  - Generalizability not as emphasized
  - Projects emphasize social action, which blurs the lines between research, community organizing and advocacy

1 Valutis, S. & Rubin, D. (2010).
2 Shore, N. (2007).

Ethics in Social Work

- Parallel between SW practice ethics and research ethics (1, 2, 4)
- NASW Code of Ethics (3)
  - Guides practice, as well as research
  - Dignity and Worth of Person, Service, and Social Justice
  - Consistent with the Belmont Report's core principles

1 Butler (2003)
2 Antle & Regehr (2003).
3 National Association of Social Workers. (2015).
4 Drewry, S. (2004).

The NASW Code of Ethics

Belmont Report Principles and Guidelines	Value (NASW Code of Ethics)	Ethical Principle (NASW Code of Ethics)	
Beneficence	Service	Social workers' primary goal is to help people in need and to address social problems.	Social workers elevate service to others above self-interest.
Justice	Social Justice	Social workers challenge social injustice.	Social workers strive to ensure access to needed information, services, and resources; equality of opportunity; and meaningful participation in decision making for all people.
Respect for Persons	Dignity and Worth of the Person	Social workers respect the inherent dignity and worth of the person.	Social workers treat each person in a caring and respectful fashion, mindful of individual differences and cultural and ethnic diversity.

Current Study

PURPOSE:

▶ Examine the relative influence of *moral considerations* (Rest, 1984 components of moral decision-making; 1) and *cost/benefit analysis* for engaging in varying types of misbehaviors (rational choice theory; 2, 3)

▶ Across fields, and across types of institutions

DESIGN:

▶ Cross-sectional mixed methods (mailed, online) survey

  ▶ 107 institutions (R1s/research and Masters/comprehensives)

  ▶ 4,556 faculty – Social Work, Psychology, Sociology/Crim, Biology

  ▶ Response rates – overall 39%

  ▶ n=1,735 (53% from R1s)

1 Rest (1984)
2 Lahno (1997)
3 Paternoster & Simpson (1996) and Tibbetts (1997)
See References for full citations.

Instrument

- Responded to 6 research scenarios indicating:

  - How likely it is that they would have acted the same in the situation

  - How harmful the action was

  - How morally wrong they and their colleagues would say it is

  - Probability of being caught by colleagues, administration, or funders/publishers

  - Probability of negative sanctions, including how likely they would feel guilt/shame

- Two versions for scenarios: Biology and Social Sciences

- Other variables:

  - Organizational justice – dept/univ. procedural & distributive

  - Gender, Year of PhD, # of publications, IRB/IACUC experience

  - % of salary covered by grants and % of salary expected to be covered by grants

  - % of effort spent conducting research

Scenarios

- Adapted from Mumford, et.al. (2006) Ethical Decision-Making Measures (EDMs), for Biological Sciences and for Social Sciences

- Each scenario has a set-up paragraph - nature of research, junior or senior professor, any collaborators. Junior professor has tenure looming.

- Each scenario followed by 3 vignettes each for a total of 6 scenarios for which respondents answered questions

Scenarios – see handout

1. IRB noncompliance – add consents for younger children without IRB approval

2. Deleted data – suspicious data received from partner lab and quietly deleted

3. Reneges on authorship – tenure review looming, professor reneges on promise for students to be first authors on their work

4. IRB noncompliance/poor personnel management – RA gives identifiable datasets to another research group, PI does not inform IRB and simply reassigns student to other work

5. Misconduct suspicion/false reporting - accepts data he believes are false from senior collaborator, without challenge, tries to downplay bad data in article

6. Conflict of interest in peer review - serves as peer reviewer for article that may jeopardize his own chances for publication, by objectively criticizing its many problems

Respondent Characteristics

Field/Discipline	*n*	%
Biology	429	25
Psychology	522	31
Soc/Crim	509	30
Social Work	244	14
Total	1704	100
Missing	31	
Total	1735	

Gender	*n*	%
Female	830	48
Male	880	51
Transgender	3	.2
Prefer not to say	6	.3
Total	1719	
Missing	16	
Total	1735	

Primary Position	*n*	%
Assistant Profs	459	27
Associate Profs	507	29
Full Professors	598	35
Administrators	135	8
Other	22	1
Total	1721	100
Missing	14	
Total	1735	

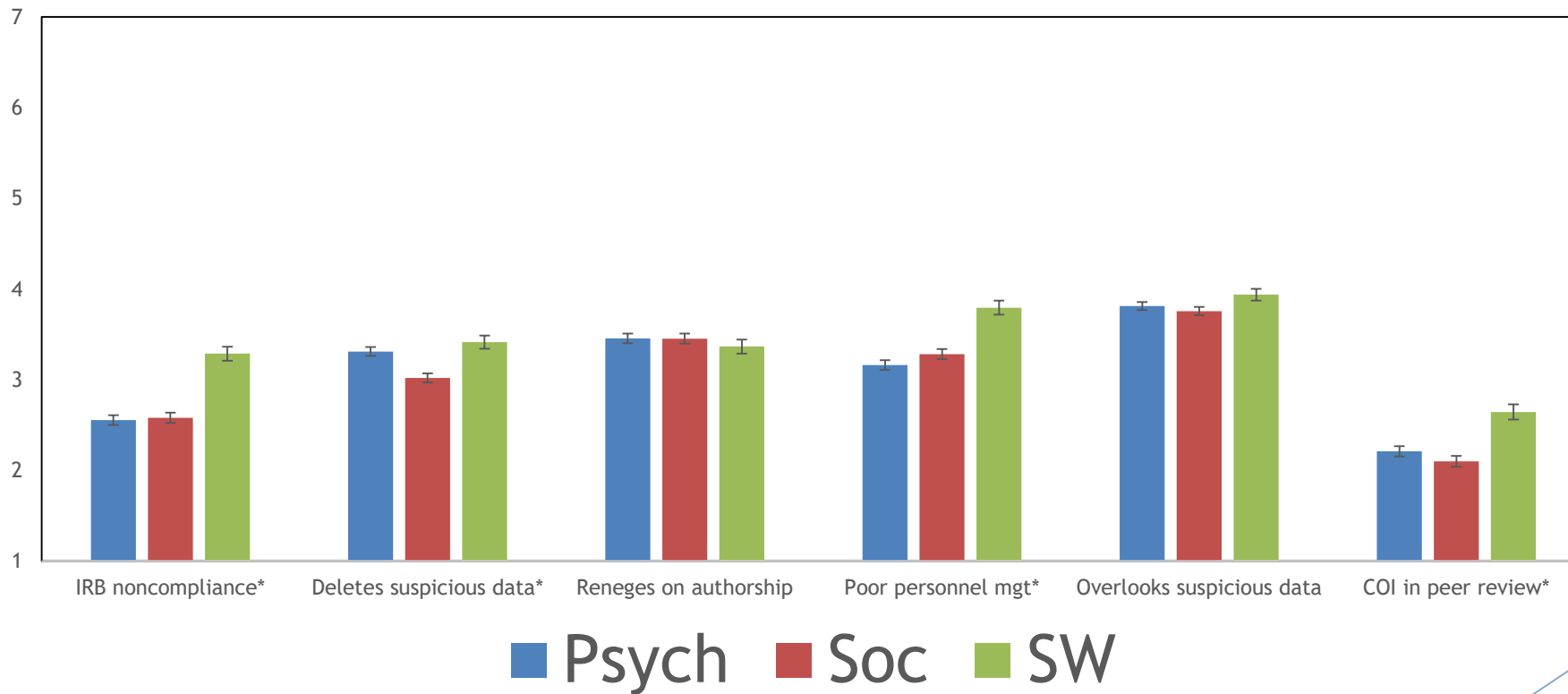# Perceived Probability of Misconduct by Scenario and Discipline
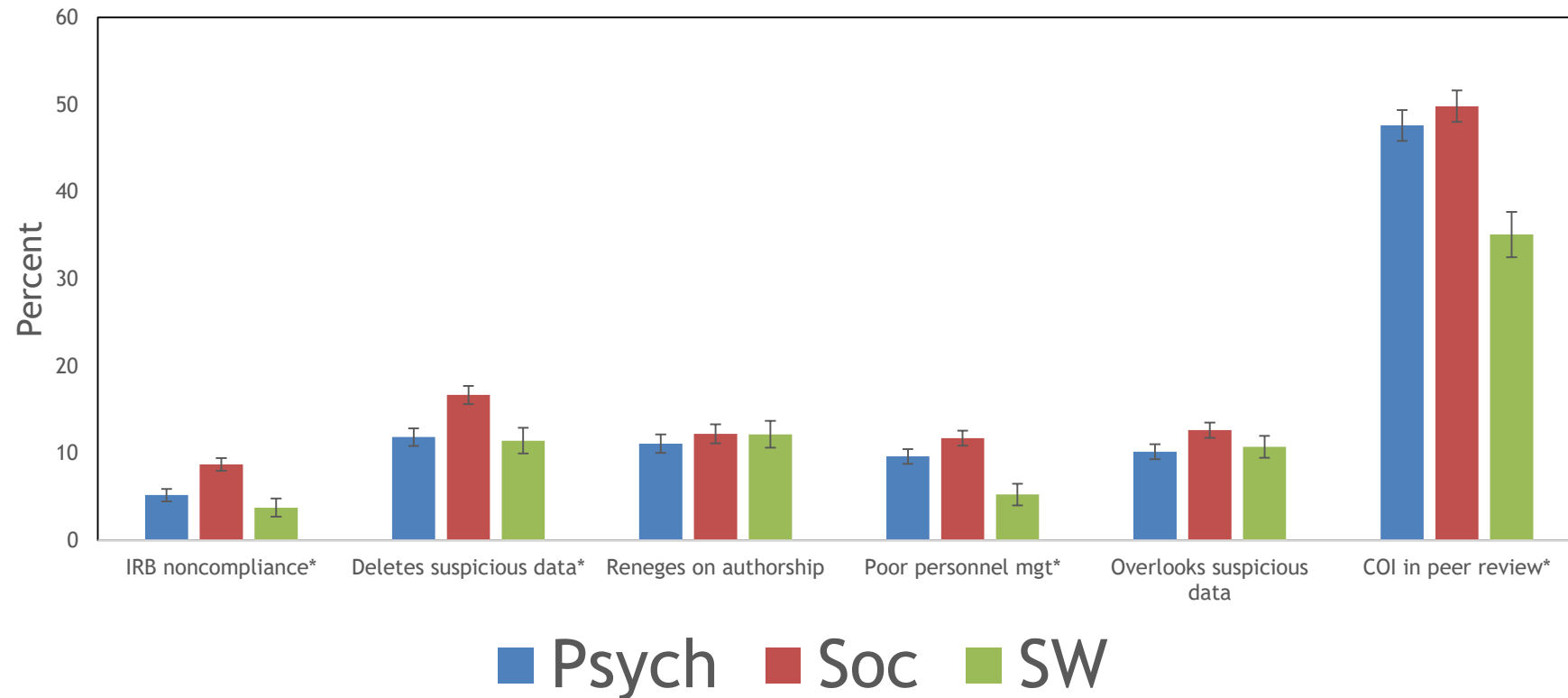
* = significant at $p < .05$, Soc more on first two, SW less on last two

Perceived Magnitude of Harm by Scenario and Discipline
Rating Scale of 1-5 (1=Minimal Harm; 5=Maximal Harm)

Legend: Psych, Soc, SW

Scenarios: IRB noncompliance*, Deletes suspicious data*, Reneges on authorship, Poor personnel mgt*, Overlooks suspicious data, COI in peer review*

* = significant at $p < .05$, SW more on 1, 4, 6, Soc less on 2

Perceptions of Organizational Justice by Discipline

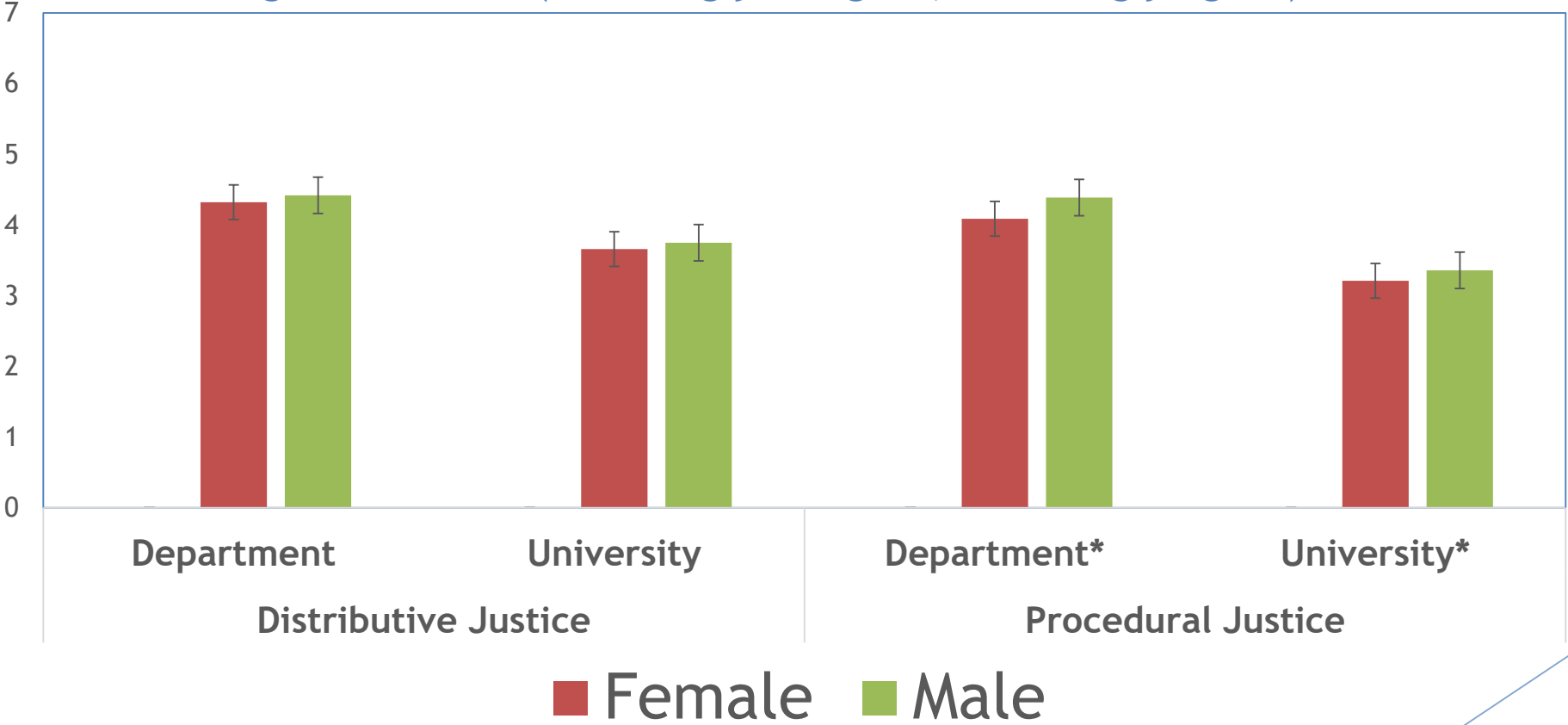**Rating Scale of 1-7 (1=Strongly Disagree; 7=Strongly Agree)**
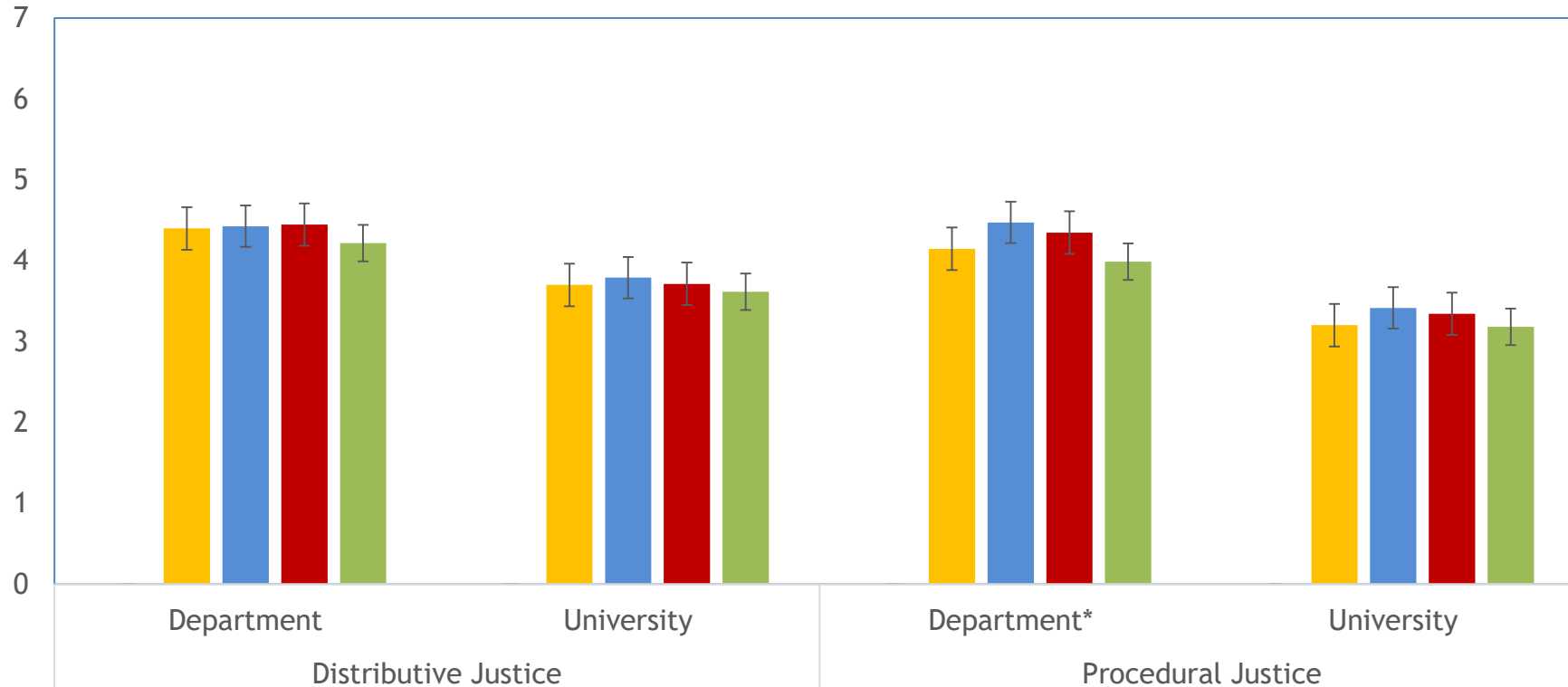
* = significant at $p < .05$, SW perceive less justice at dept. level
a= .938 (1) .949 (2) .947 (3) .942 (4)

Perceptions of Organizational Justice by Gender (all fields)

Rating Scale of 1-7 (1=Strongly Disagree; 7=Strongly Agree)

Distributive Justice — Department, University

Procedural Justice — Department*, University*

■ Female ■ Male

* = significant at $p < .05$, Females perceive less procedural justice on 3, 4
Note: There were no significant differences between females and males within the Social Work sample.

Perceived Probability of Misconduct

		Standarized Co-efficients by scenario					
		1	2	3	4	5	6
Block 1	Male**	0.14	0.04	0.07	-0.07	0.05	**-0.17***
	Year of PhD	0.05	0.09	0.04	-0.08	-0.05	-0.14
	N of IRBs, capped at 30**	-0.10	-0.15	-0.01	-0.03	-0.12	-0.08
	% research effort	-0.03	-0.07	0.08	0.00	0.01	-0.09
	R2 change**	0.03	0.05	0.01	0.01	0.02	**0.05***
Block 2	R1 university	-0.04	0.05	0.05	0.08	0.00	-0.04
	Magnitude of harm	**-0.17***	-0.11	-0.07	-0.13	-0.11	-0.11
	Probability of shame**	-0.08	**-0.25***	**-0.39***	-0.12	**-0.21***	**-0.30***
	How Wrong (You & Colleagues)**	**-0.24***	**-0.32***	**-0.37***	**-0.29***	**-0.28***	**-0.49***
	Probability of detection	0.05	0.11	0.04	-0.03	0.03	-0.04
	R2 change**	**0.13***	**0.30***	**0.51***	**0.21***	**0.24***	**0.69***
Block 3	Dept Distributive	-0.07	-0.19	0.08	-0.14	-0.01	**0.16***
	Dept Procedural	0.13	0.07	0.06	0.13	-0.05	-0.05
	Univ Distributive	0.00	**0.27***	-0.10	-0.05	0.10	**-0.12***
	Univ Procedural	-0.01	-0.16	-0.07	0.02	-0.03	0.11
	R2 change	0.01	0.03	0.02	0.01	0.01	**0.01***
Block 4	Wrongness x External Sanctions	-0.06	0.09	0.08	0.00	0.04	0.02
	R2 change	0.00	0.00	0.00	0.00	0.00	0.00
	Overall R2	0.17	0.38	0.54	0.23	0.26	0.76

- $p \leq .05$
** Significant in 3 or more scenarios in overall social science regressions

Summary of Regression Results

- As expected, moral judgment (wrongness) and anticipated guilt or shame were the strongest and most consistent predictors of the perceived likelihood of misconduct

- Perceived likelihood of detection or external sanctions (e.g. discipline from university) had no overall effect

- Unlike the overall social science regressions, anticipation of sanctions was not important in relation to moral judgment (no interaction).

- Distributive justice (perceived fairness of resource allocation) appear to matter in two scenarios, but effects are inconsistent

- Type of university, position, Year of PhD, and % effort spent in research did not predict probability of misconduct.

Limitations

- ► Are people being honest?
  - ► Used anonymous survey
- ► Scenarios are not measuring actual behavior
  - ► Used scenarios to reduce social desirability and to assess situations that may have not yet happened to participants
- ► Are people willing to do a study like this different from those who don't?
  - ► Further analysis will attempt to assess this.

Implications for Reducing or Preventing Misconduct

▶ Rather than compliance-oriented education (which has little research support to date in any case), focus on why integrity in research is important (e.g., why misconduct is unethical).

▶ Draw parallels between practice ethics and research ethics.

▶ Skills training or mentoring in ethical decision-making may be helpful. (See Gray & Gibbons, 2007)

Questions? Comments? Discussion

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SUPPORTING DATE FOR SLIDE – OVERALL SAMPLE
Est. marginal means from Anova results for each scenario, combined into one chart – for prob. Of misconduct

% likely						
	Psych	Soc	SW	seP	seS	seSW
IRB noncompliance*	5.2	8.7	3.8	0.7	0.7	1.0
Deletes suspicious data*	11.8	16.7	11.4	1.0	1.0	1.5
Reneges on authorship	11.1	12.2	12.2	1.1	1.1	1.5
Poor personnel mgt*	9.6	11.7	5.2	0.8	0.9	1.2
Overlooks suspicious data	10.2	12.6	10.7	0.9	0.9	1.3
COI in peer review*	47.6	49.8	35.1	1.8	1.8	2.6

SUPPORTING DATA FOR SLIDE Overall sample: Est. marginal means from Anova results for each scenario, combined into one chart – for magnitude of harm

harm						
	Psych	Soc	SW	seP	seS	seSW
IRB noncompliance*	2.6	2.6	3.3	0.1	0.1	0.1
Deletes suspicious data*	3.3	3.0	3.4	0.0	0.1	0.1
Reneges on authorship	3.5	3.5	3.4	0.1	0.1	0.1
Poor personnel mgt*	3.2	3.3	3.8	0.1	0.1	0.1
Overlooks suspicious data	3.8	3.8	3.9	0.0	0.0	0.1
COI in peer review*	2.2	2.1	2.6	0.1	0.1	0.1

Perceptions of Sanctions, Wrongness, and Misconduct by Gender (SW only)