

# Blue Judogis may Bias Competition Outcomes

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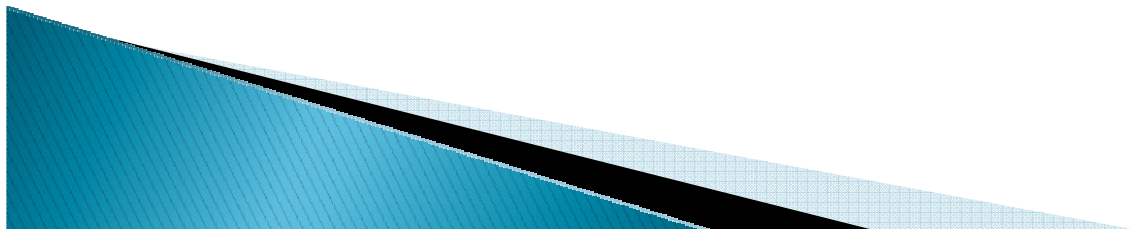
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# The Effects of Color on Aggression in Sports

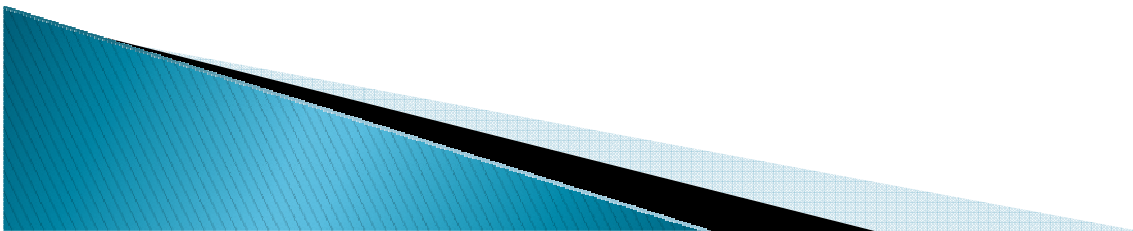
## ▶ A Winning Bias for Blue Judogis?

- Hill and Barton, 2005
  - Analyzed results of men's combat sports in the 2004 Athens Olympic Games
  - Athletes wearing red outfits were more successful than those wearing blue
- Frank and Gilovich, 1988
  - Analyzed results of sports in the US that were aggressive (e.g., football, rugby, hockey)
  - Teams wearing dark colors were more successful, and were penalized more



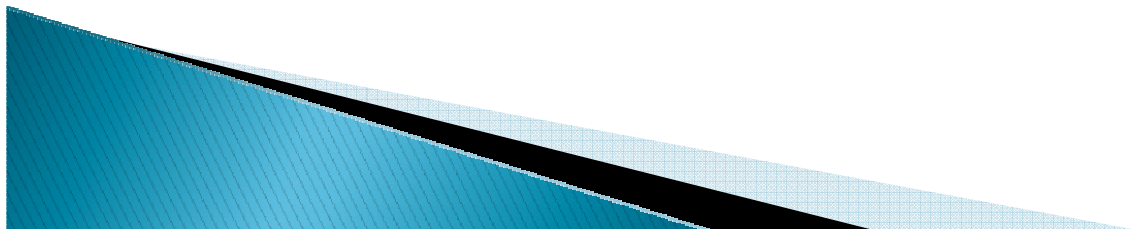
# What about Judo?

- ▶ Rowe et al. (2005)
  - ▶ Analyzed blue v. white judogis
  - ▶ But analyses were flawed
  - ▶ Only analyzed one tournament



# Description of the Study

- Competitions studied
  - 2001, 2003, 2005 World Championships; 2004 Athens Olympic Games
    - Analyzed win ratios for
      - Entire tournament
      - After first round
      - Medal rounds only
      - With and without the repechage
- White only competition
  - 1996 Atlanta Olympics, 2005 and 2006 Kano Cup, 2004 and 2005 All Japan Championships
- Method of Analysis

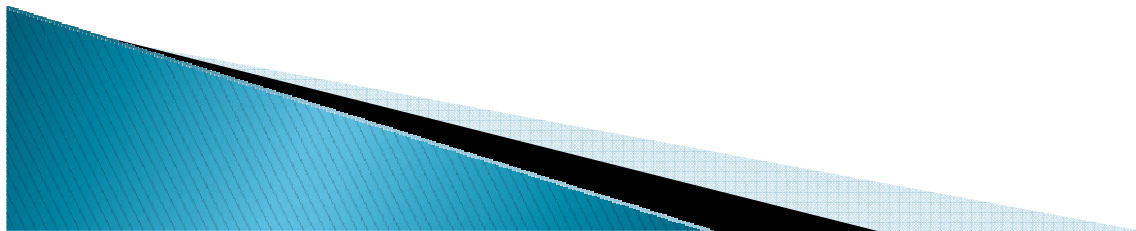


# The Results

	<b>Overall</b>			<b>Males</b>			<b>Females</b>		
	Winning %	After 1 <sup>st</sup> Rd	Medal Rds	Winning %	After 1 <sup>st</sup> Rd	Medal Rds	Winning %	After 1 <sup>st</sup> Rd	Medal Rds
2005 Worlds	53.69*	55.14*	56.25	54.11	55.76*	62.50	53.09	54.32	50.00
2004 Athens Olympics	54.44*	53.00	54.76	58.25**	55.32+	61.90	49.05	49.71	47.62
2003 Worlds	50.13	50.23	47.92	51.72	52.23	54.17	48.13	47.84	41.67
2001 Worlds	51.05	52.71	52.08	51.66	55.32*	62.50	50.16	49.18	41.67
<i>Total Winning %</i>	<b>52.11</b>	<b>52.64*</b>	<b>52.69</b>	<b>53.54**</b>	<b>54.55**</b>	<b>60.22*</b>	<b>50.13</b>	<b>50.16</b>	<b>45.16</b>
<i>Total Matches Analyzed</i>	<b>2794</b>	<b>2213</b>	<b>186</b>	<b>1623</b>	<b>1252</b>	<b>93</b>	<b>1171</b>	<b>961</b>	<b>93</b>

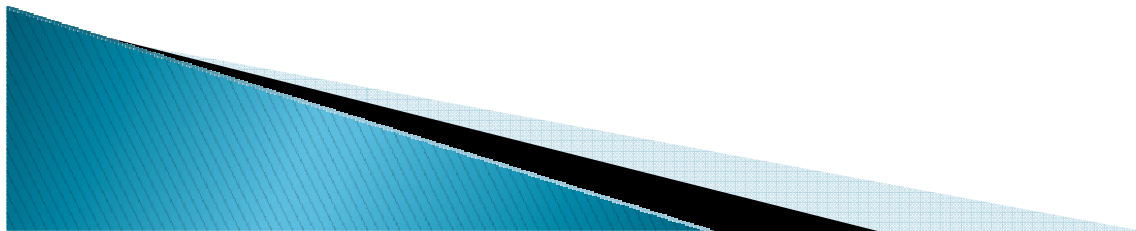
# Discussion and Conclusion

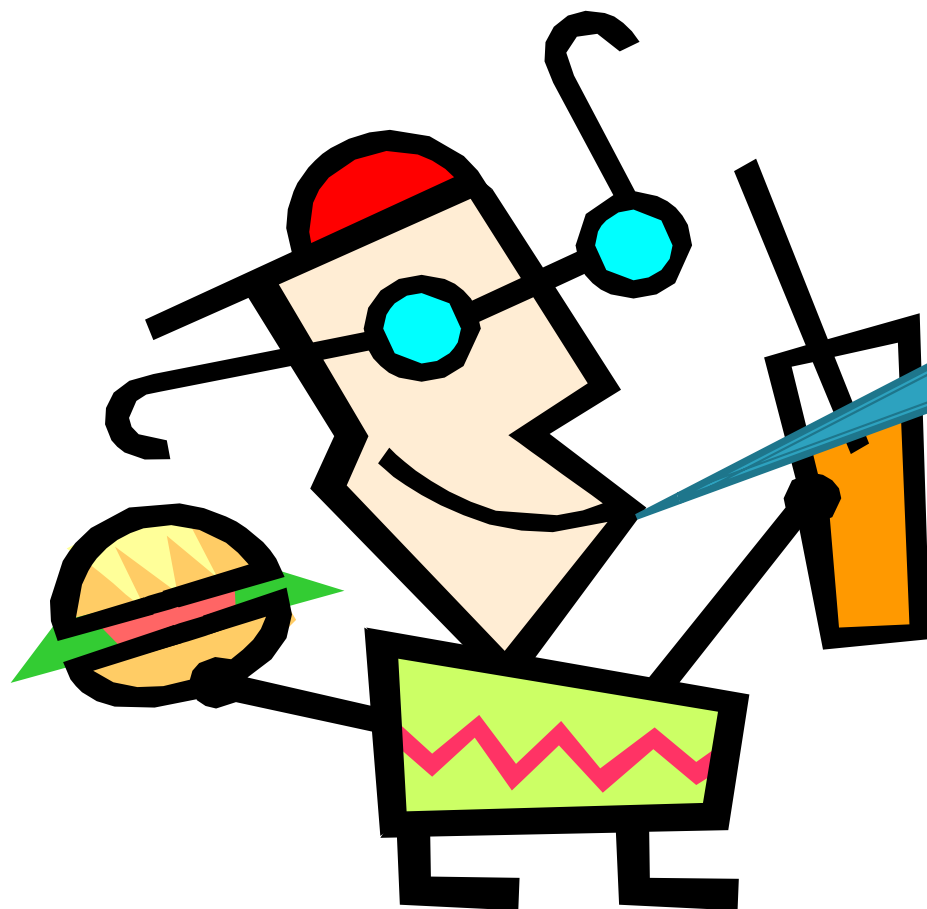
- ▶ Color signals that are biologically programmed, sexually-selected and testosterone-dependent – are associated with dominance and aggression, especially in males; or
- ▶ Color provides differential ability for object discrimination
  - May affect referees, athletes, and spectators



# Discussion and Conclusion

- ▶ We do *not* argue for a reversion back to the use of white judogis only.
- ▶ We do advocate, however, the support of the continued study of this issue by judo organizations around the world to examine these effects and their bases closely, and to make rational, informed decisions concerning these aspects of the contest rules to ensure the safety and principles of fair play.





Thank you!



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