

**Table 5.1 Death Penalty Verdict by Defendant's Race and Victim's Race**

Defendant's Race	Victim's Race	Death Penalty		Percentage Yes
		Yes	No	
White	White	19	132	12.6
	Black	0	9	0.0
Black	White	11	52	17.5
	Black	6	97	5.8

Source: Reprinted with permission from Radelet (1981).  
full table

the levels of victim's race. About 12% of white defendants and about 10% of black defendants received the death penalty. Ignoring victim's race, the percentage of "yes" death penalty verdicts was lower for blacks than for whites.

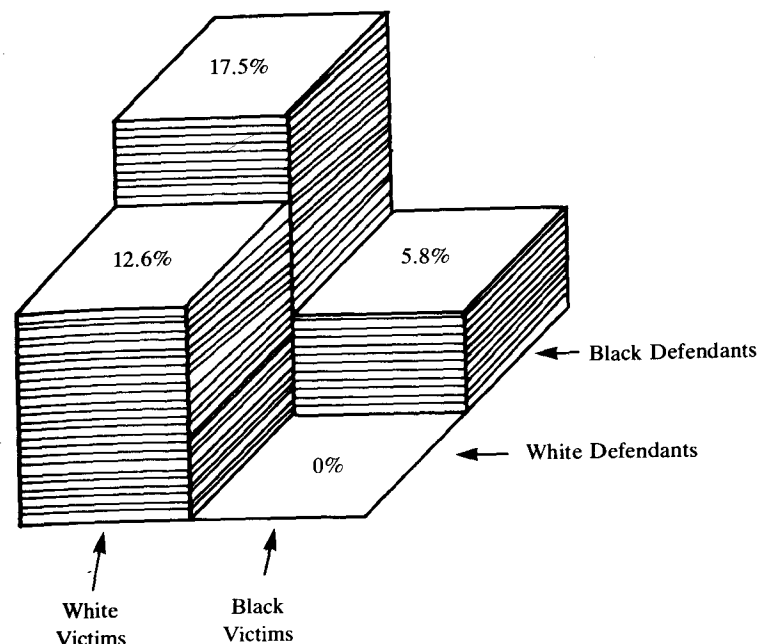
For each combination of defendant's race and victim's race, Table 5.1 lists the percentage of subjects who received the death penalty. These are displayed in Figure 5.1. Consider the association between defendant's race and the death penalty verdict, controlling for victim's race. When the victim was white, the death penalty was imposed about 5 percentage points more often for black defendants than for white defendants. When the victim was black, the death penalty was imposed over 5 percentage points more often for black defendants than for white defendants. Controlling for victim's race, the percentage of "yes" death penalty verdicts was higher for blacks than for whites. The direction of the association is the reverse of that in the marginal table. SIMPSON

Why does the association between death penalty verdict and defendant's race change direction when we control victim's race? Let us study Table 5.3. For each pair of variables, it lists the marginal odds ratio and also the partial odds ratio at each level of the third variable. The

**Table 5.2 Frequencies for Death Penalty Verdict and Defendant's Race**

Defendant's Race	Death Penalty		Total
	Yes	No	
White	19	141	160
Black	17	149	166
Total	36	290	326

marginal table



**Figure 5.1** Percent receiving death penalty.

marginal odds ratios describe the association when the third variable is ignored (i.e., when we sum the counts over the levels of the third variable to obtain a marginal two-way table). The partial odds ratios describe the association when the third variable is controlled. Since one cell count in the three-dimensional table equals zero and since several of them are small, we added 0.5 to each cell count before computing these odds ratios.

**Table 5.3 Odds Ratios for Death Penalty (P), Victim's Race (V), and Defendant's Race (D)<sup>a</sup>**

Association	Variables	Variables		
		P-D	P-V	D-V
Marginal		1.18	2.71	25.99
Partial	Level 1	0.67	2.80	22.04
	Level 2	0.79	3.29	25.90

<sup>a</sup>The value 0.5 was added to each cell frequency before calculation of odds ratios.

P-D is the visible outcome  
odds ratios flip

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SIMPSON'S PARADOX (marginal vs conditional odds ratios) DEATH PENALTY ex
> deathP = matrix(c(19,17, 141,149), nr = 2,
+ dimnames = list("Def" = c("Wh", "Blk"), "DP" = c("Y","N")))
> deathP # unconditional, marginal table
      DP
Def   Y   N
Wh  19 141
Blk 17 149
> prop.table(deathP,1)
      DP
Def   Y   N
Wh 0.1187500 0.8812500
Blk 0.1024096 0.8975904
> # so where's the racial bias? Wh seems more likely to fry
> deathPWvic = matrix(c(19,11, 132,52), nr = 2,
+ dimnames = list("Def" = c("Wh", "Blk"), "DP" = c("Y","N")))
> deathPBvic = matrix(c(0,6, 9,97), nr = 2,
+ dimnames = list("Def" = c("Wh", "Blk"), "DP" = c("Y","N")))
> prop.table(deathPWvic,1)      > prop.table(deathPBvic,1)
      DP      DP
Def   Y   N      Def   Y   N
Wh 0.1258278 0.8741722      Wh 0.00000000 1.00000000
Blk 0.1746032 0.8253968      Blk 0.05825243 0.9417476
> # for each level of Victim race, Black Def more likely to receive DP
reversal by conditioning instance of Simpson's Paradox (e.g. marginal vs cond'l or)

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Stat141-- victim race stratifying var, flips association