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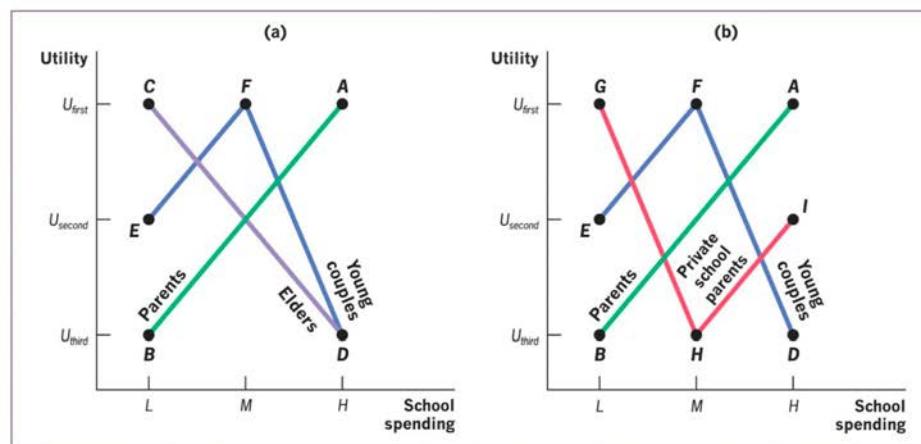
■ FIGURE 9-1

Lindahl Pricing • Panel (a) shows Ava’s marginal willingness to pay for fireworks, and panel (b) shows Jack’s marginal willingness to pay for fireworks. These marginal willingnesses to pay are summed in panel (c). The marginal cost of a firework is \$1, so the optimal level of firework provision is 75 fireworks, the point at which marginal cost equals the sum of willingness to pay.

TABLE 9-1 Majority Voting Delivers a Consistent Outcome

		Types of Voter		
		Parents (33.3%)	Elders (33.3%)	Young Couples (33.3%)
Preference Ratings	First	H	L	M
	Second	M	M	L
	Third	L	H	H

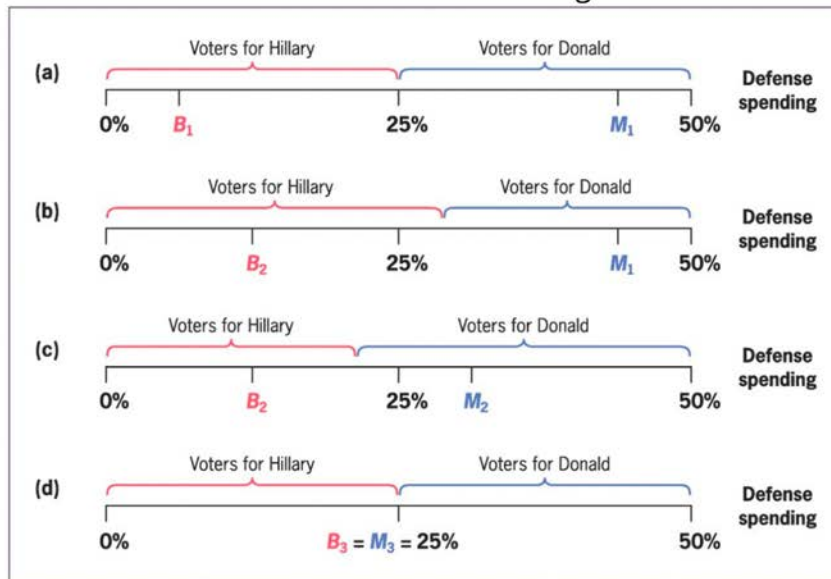
In this example, the option chosen by majority voting will be the medium level of funding, the choice of the median voter (the young couples).



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FIGURE 9-2

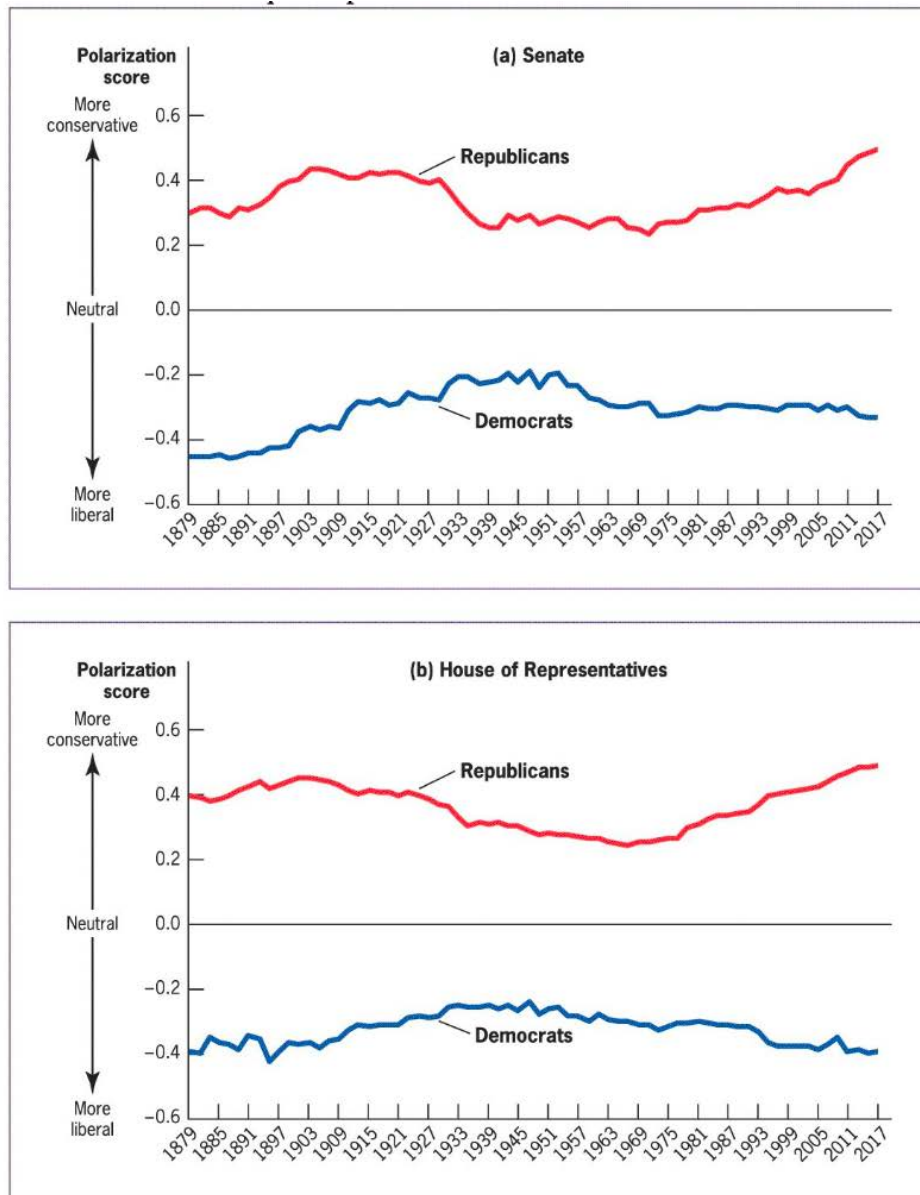
Single-Peaked Versus Non-Single-Peaked Preferences • Panel (a) graphs the preferences from Table 9-1, which are all single-peaked; utility is always falling as each individual moves away from the preferred choice. Panel (b) graphs the preferences from Table 9-2; now the parents considering private school don't have single-peaked preferences because utility first falls and then rises as spending levels increase.



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FIGURE 9-3

Vote Maximization Leads to the Median Voter Outcome • In panel (a), Hillary favors small defense and Donald favors large defense, and they get an equal number of votes. In panel (b), Hillary increases the level of defense spending she will support, and by doing so, she obtains more than half the votes. In panel (c), Donald then reduces the level of defense spending he will support, and by doing so, he obtains more than half the votes. This continues until, in panel (d), both politicians support the outcome preferred by the median voter and get the same number of votes.



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FIGURE 9-4

Political Polarization in the House and Senate, 1879–2017 • Panel (a) shows the trend in party polarization in the Senate. The two parties were most ideologically similar between the 1930s and early 1950s, after which polarization increased in each direction, but particularly so for Republicans, whose score almost tripled since 1970. Panel (b) shows polarization trends in the House of Representatives. Democrats became notably more conservative in the first half of the twentieth century, and have slowly become more liberal in the second half of the twentieth century. Republicans had become gradually less

conservative between the 1900s and the 1970s, but 1977 saw the beginning of an exponential increase in polarity which has been ongoing in recent years. Polarity has reached an all-time high for both parties, and moderates are less common.

Data from: [Lewis \(2018\)](#).

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