We'll use Happy Faces and Sad Faces to illustrate third-party costs and benefits. Each illustration in Figure 2 shows a supplier, a consumer, and a third party. The suppliers have *S*'s for hair, the consumers *C*'s, and the third parties *T*'s.

Part A depicts an external cost of production. The seller and consumer have happy faces. The consumer receives the product and pays the seller. Because this is a voluntary transaction, the consumer thinks the payment for the product is worthwhile. The seller also has a happy face since the payment provides an acceptable price for the product. However, Part A shows a third party who is sad because of a negative effect from production. An example of an external cost of production is pollution resulting from a manufacturing process. Let us suppose that in Part A the producer's operations pollute air or water and the producer does not prevent the pollution or clean it up afterward. Hence, the producer's price does not include the cost of dealing with the pollution. The consumer also benefits because if the producer's cost does not cover the cost of dealing with the pollution, the price to the consumer is lower than it otherwise would be. However, third parties who must now contend with dirtier air or more polluted water suffer increased costs such as health problems, reduced recreational opportunities, and higher taxes for water purification. Because the price of the product is lower than it would be if the producer paid all the costs of dealing with the pollution, the unregulated market economy will produce too much of the product. In general, because third-party costs are not reflected in the market prices paid by buyers, goods or services that result in external costs will be overproduced in an unregulated market.

Part B depicts an external benefit of production. The external benefit again comes from a market transaction, but this time it brings a happy face to the third party, for in this instance, third parties benefit even though they pay none of the costs of producing the product. An example is a dam built to generate electric

Figure 2

External Benefits and Costs