Figure 1.1 A concave utility function.

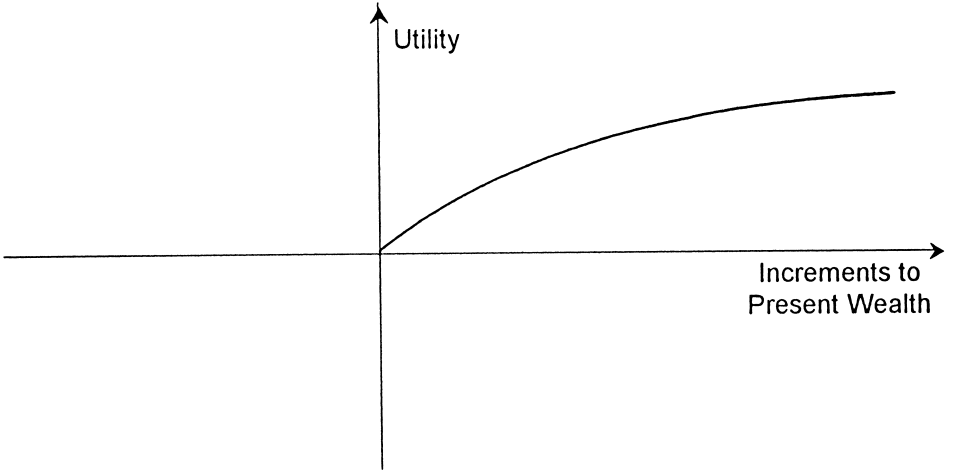


Figure 1.2 Prospect theory type value function.

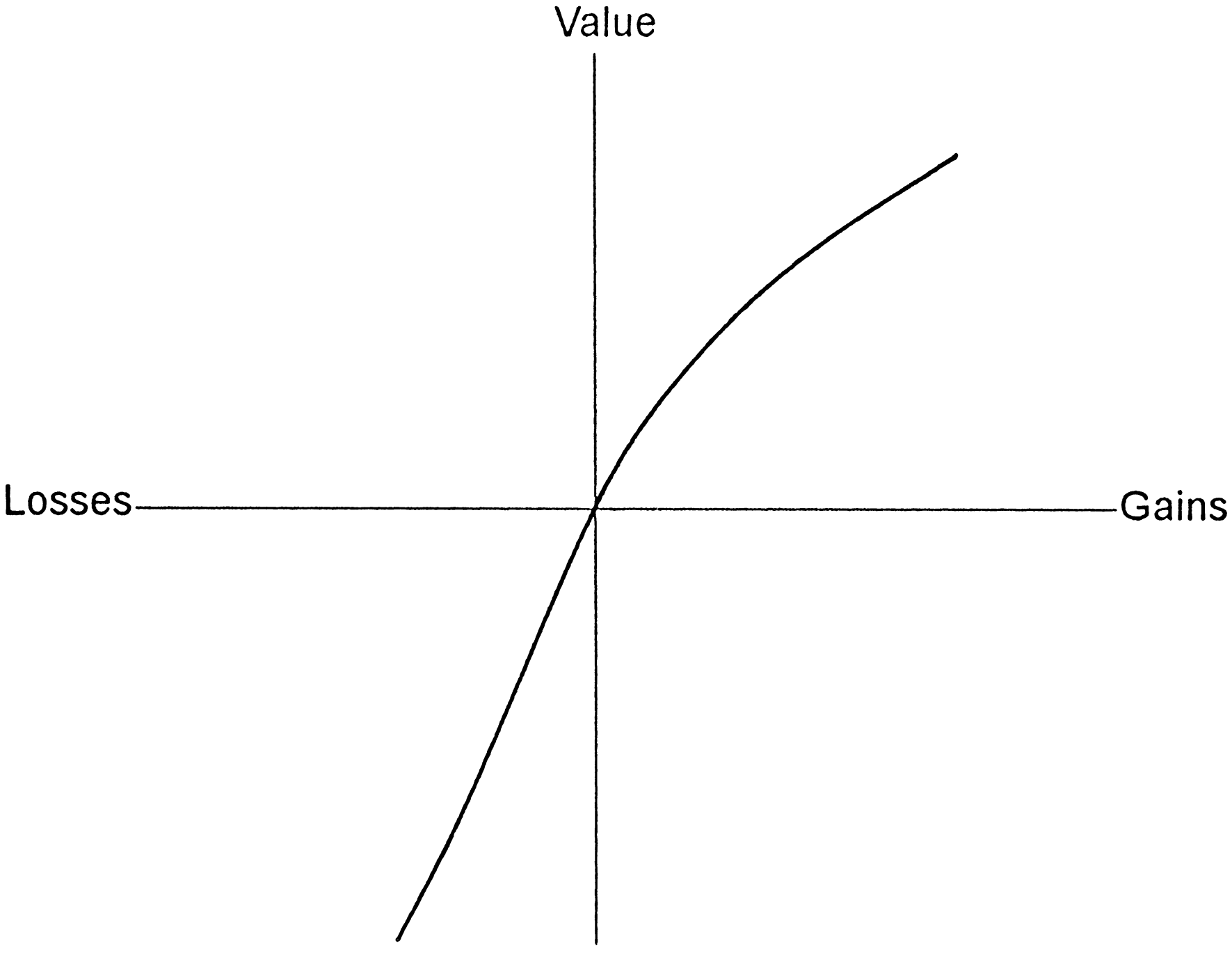


Table 1.1 A flip-of-the-coin-game.

Game: Your task is to correctly guess the outcome of a flip of a coin. The game lasts until one makes a correct guess (then it can start again). The reward structure is as follows:

Game Ends on Trial No.	Payoff	Probability of Winning	Payoff x Probability
1	\$2	1/2	\$1
2	\$4	1/4	\$1
3	\$8	1/8	\$1
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
.	.	.	.
10	\$1024	1/1024	\$1
n	$\$2^n$	$1/2^n$	\$1
.	.	.	.
.	.	.	.

Note: Expected Value = 1 + 1 + 1 + ... + 1 + + + ... = (infinity)

Figure 4.1 Variances and risk.

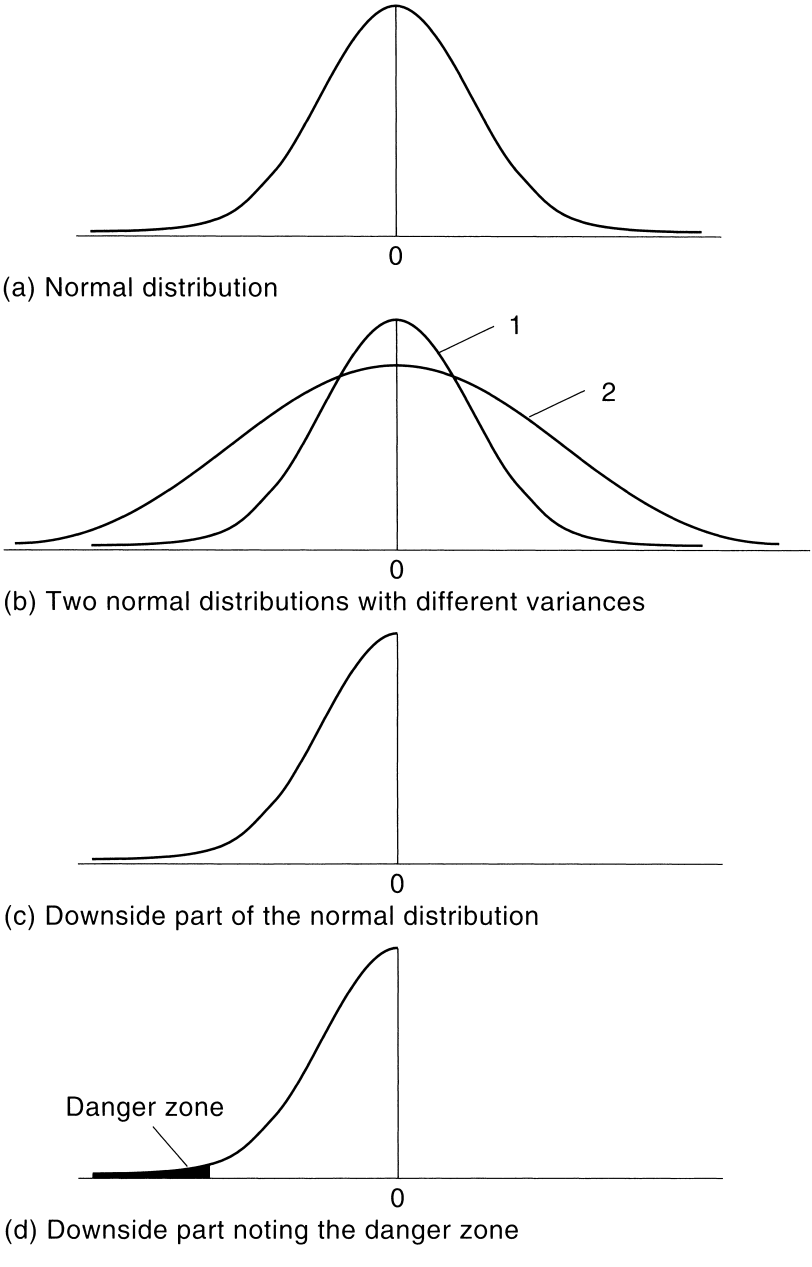


Table 4.1 Degree to which one can apply control and use skills in gambling and in risk taking (mean responses).

Mode Domain	Gambling	Risk Taking in Managerial Decision Making
Control*	2.05	3.77
Use of Skills**	2.23	4.37

*1	2	3	4	5
Absolutely No Control	No Control	Neither Control Nor No Control	Control	Absolute Control

**1	2	3	4	5
Always Luck	Mainly Luck	Neither Skill Nor Luck	Mainly Use of Skills	Considerable Use of Skills

Table 4.2 Mean responses of managers in different organizations on the relations among risk, gambling, control, and skills.

Sample Response	Government Employees (N = 61)	State-owned Corporations (N = 98)	Financial Institution (N = 85)	Leading Executive Program (N = 66)
Risk Taking Related to Gambling*	1.85	1.94	1.79	2.56
Control in Risk Taking (Gambling)**	3.87 (2.42)	3.89 (1.96)	3.78 (2.68)	3.79 (2.14)
Use of Skills in Risk Taking (Gambling)***	4.61 (2.08)	4.29 (2.30)	4.60 (2.93)	4.27 (2.67)

Notes: Numbers in parentheses refer to questions about gambling.

*1	2	3	4	5
No Relation	Some Relation	Relation	Strong Relation	Virtually the Same

**1	2	3	4	5
Absolutely No Control	No Control	Neither Control Nor No Control	Control	Absolute Control

***1	2	3	4	5
Always Luck	Mainly Luck	Neither Skill Nor Luck	Mainly Use of Skills	Considerable Use of Skills

Figure 5.1 Risk tendencies under different scenarios.

Consider yourself in each of the following situations separately:

a. You succeeded a lot and are well above the target.

b. You succeeded and are above the target.

c. You barely succeeded and are hardly above the target.

d. You failed a little and are hardly below the target.

e. You failed and are below the target.

f. You failed considerably and are well below the target.

For each of these situations, separately indicate on the table the number that most describes the risk that you would take; you should have taken; other managers would take.

Choose numbers from the following scale:

1 = Minimum risk

2 = Definitely less than average risk

3 = A little less than average risk

4 = Average risk

5 = A little more than average risk

6 = Definitely more than average risk

7 = Maximum risk

Risk Situation	a	b	c	d	e	f
I would have taken						
I should have taken						
Other managers would take						

Fig. 5.2 Risk tendencies (risks "I would have taken" as a function of past success or failure). A leading MBA program.

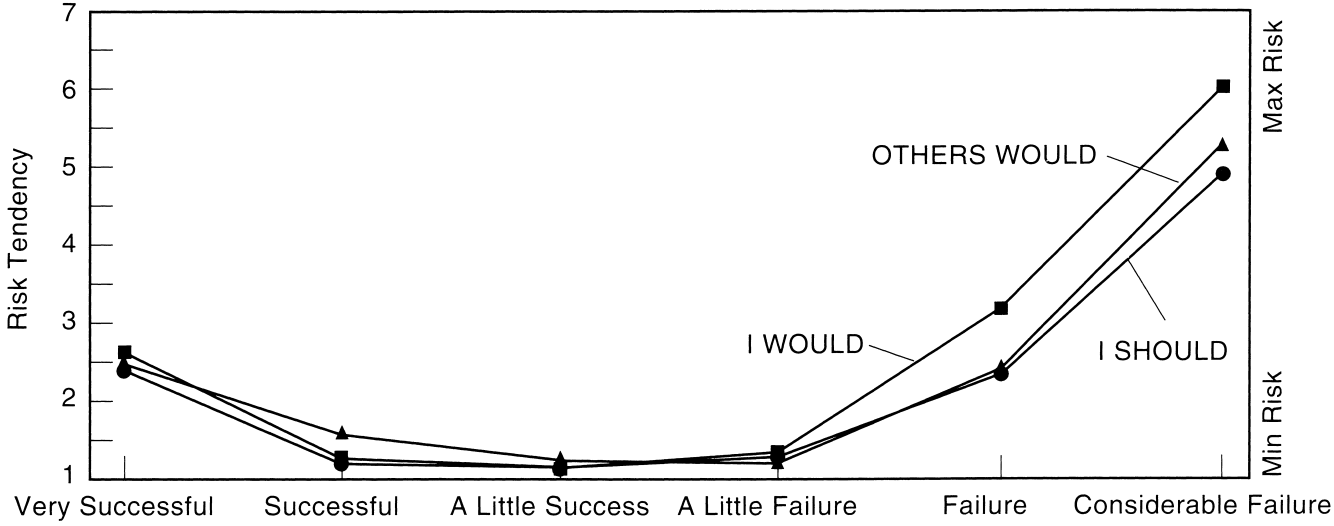


Fig. 5.3 Risk tendencies (risks "I would have taken" as a function of past success or failure). Financial institution.

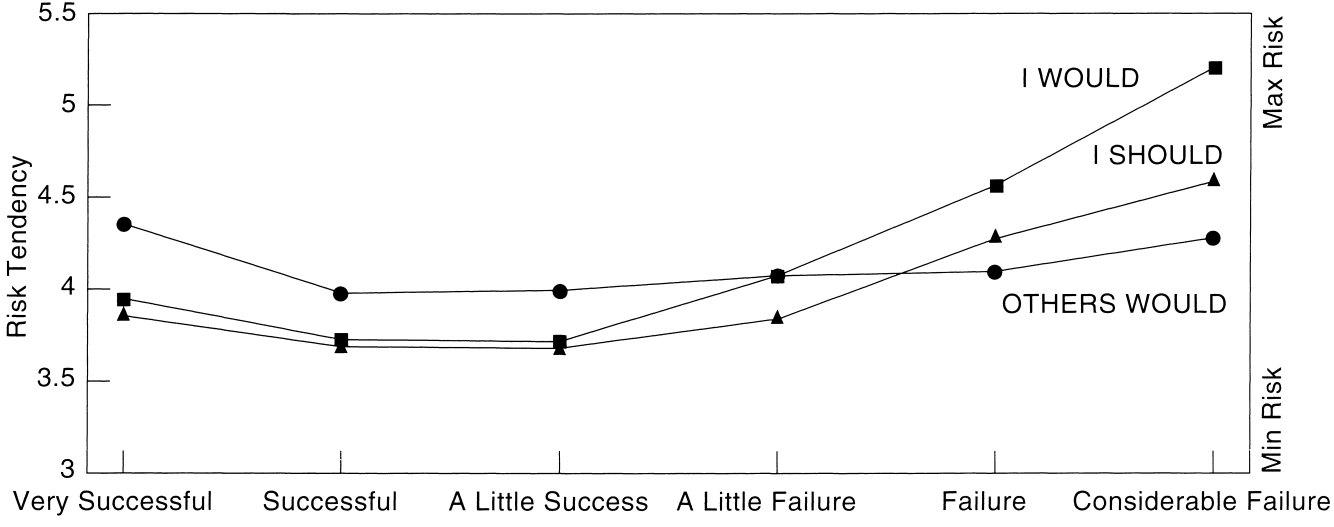


Figure 5.4 Risk tendencies (risks "I would have taken" as a function of past success or failure). Adventurous versus cautious responses.

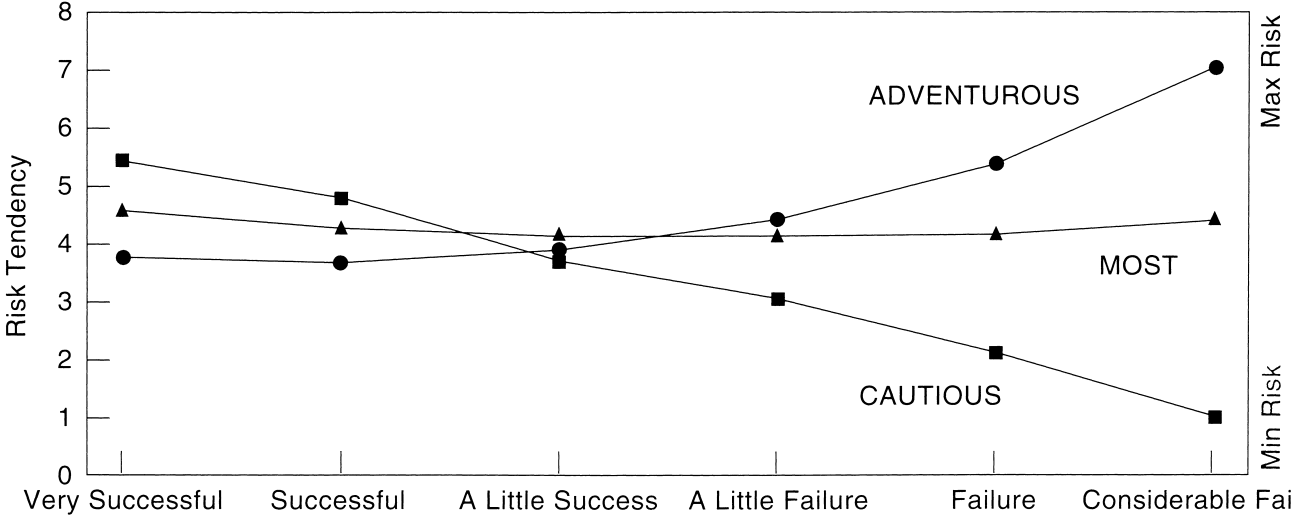


Table 5.1 Risks "I would have taken" under different scenarios (correlations).

Failure	Success	Barely Succeeded	Succeeded	Succeeded a Lot
Failed a Little		.58	–.02	–.14
Failed		.15	–.31	–.37
Failed Considerably		.01	–.36	–.39

Table 5.2 Risks "I should have taken" under different scenarios (correlations).

Failure	Success	Barely Succeeded	Succeeded	Succeeded a Lot
Failed a Little		.57	.04	–.06
Failed		.19	–.32	–.39
Failed Considerably		.01	–.38	–.42

Table 5.3 Risks "others would take" under different scenarios (correlations).

Failure	Success	Barely Succeeded	Succeeded	Succeeded a Lot
Failed a Little		.40	–.01	–.07
Failed		.11	–.30	–.35
Failed Considerably		.01	–.33	–.37

Table 6.1 Rank order of modes of dealing with risk.

Action*	Average Rank
Collect More Information	1.46
Check Different Aspects	2.11
Actively Work on the Problem	2.43
Delay the Decision	4.07
Avoid Taking the Risk	4.73
Delegate the Decision	5.51

*These actions were ranked in terms of the degree to which they described the way managers dealt with risk; the higher the rank, the more frequently the action was used.

Table 6.2 Dealing with risks: A comparison among different organizations.

Sample	Government Employees (N = 61)	State-owned Corporations (N = 98)	Financial Institution (N = 85)	Leading MBA Program (N = 66)
Delay Decision with Risk (Rank 1–7)*	2.96	3.60	3.12	4.44
Organizations Should Avoid Taking Risks**	6.85	4.14	4.28	3.94

*Other alternatives: avoid, collect more information, check problem, actively work, delay, delegate, other.

**1	2	3	4	5	6	7
Only When Necessary	When There Can Be a Significant Loss	When Lacking Information or Control	When There Is Little Information and Little Control	Often	Most of the Time	Always

Note: The categorical scale is based on the managers' responses.

Figure 7.1 Two gambles.

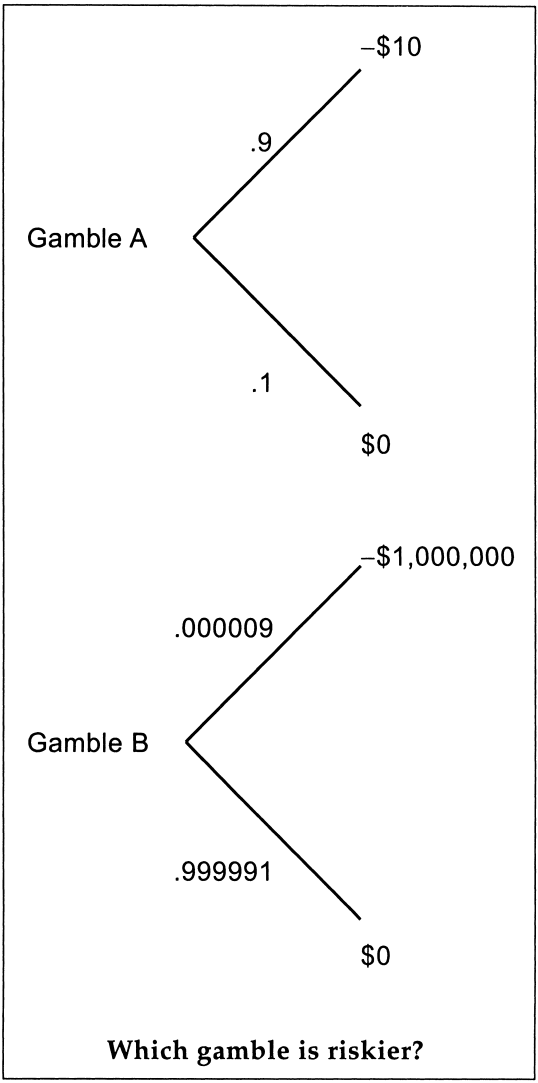
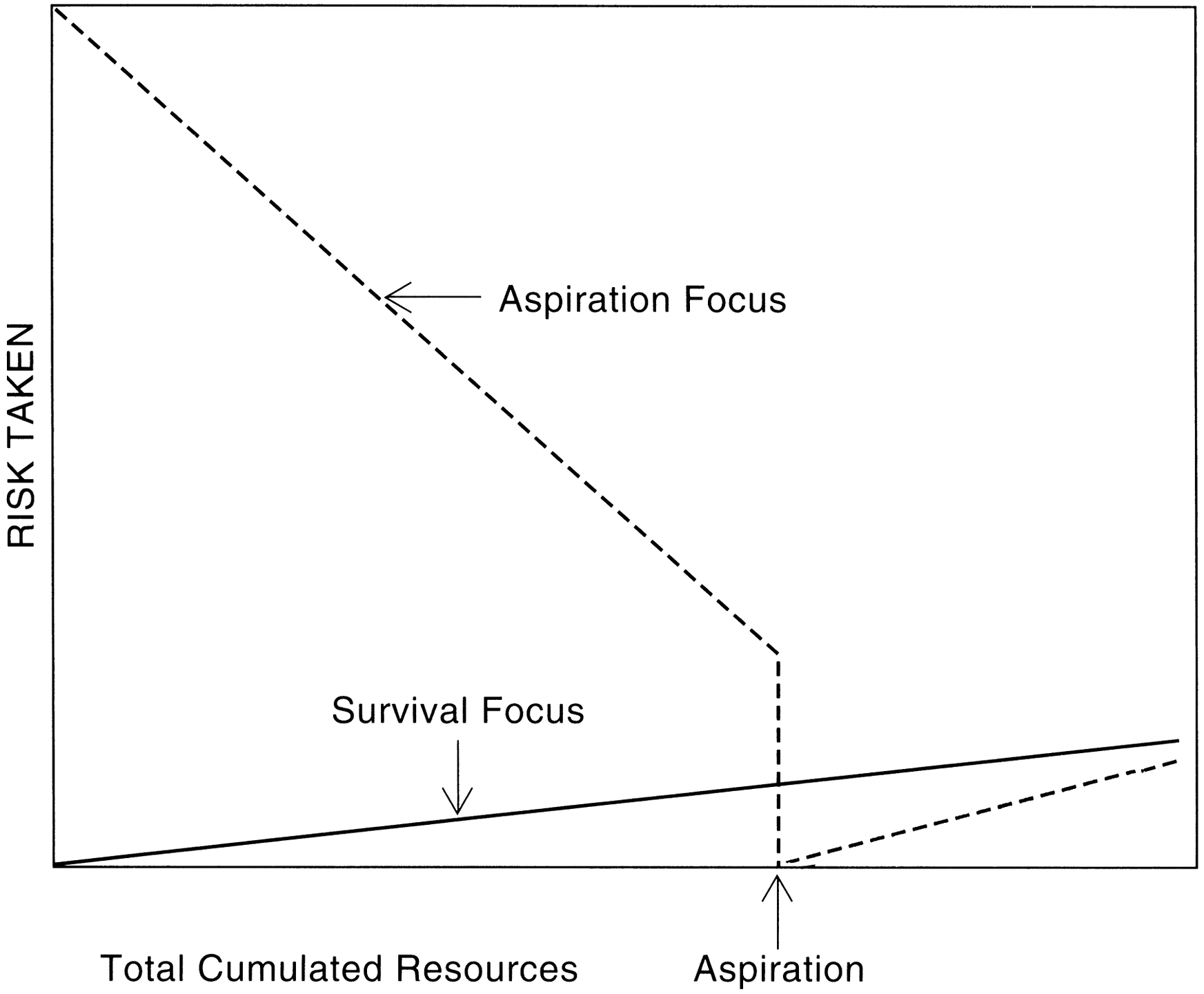


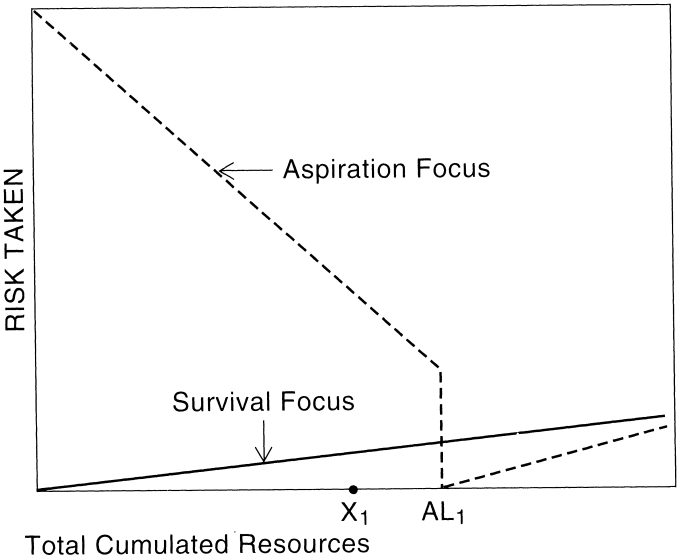
Figure 7.2 Risk as a function of cumulated resources for fixed focus of attention.



SOURCE: March, J. G., and Z. Shapira (1992). "Variable risk preferences and the focus of attention." *Psychological Review, 99,* 172-183. © 1992 by the American Psychological Association. Reprinted by permission.

Figure 7.3 Effects of changes in aspiration level on risk taking.

7.3a



7.3b

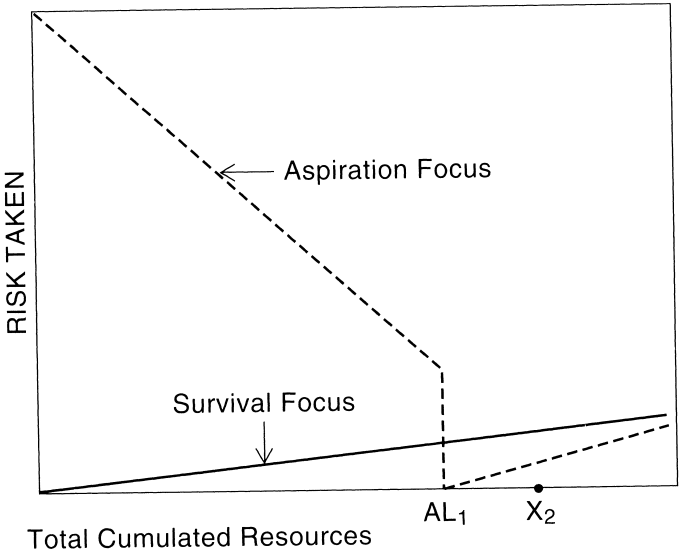


Fig. 7.3 *(continued)*

7.3c

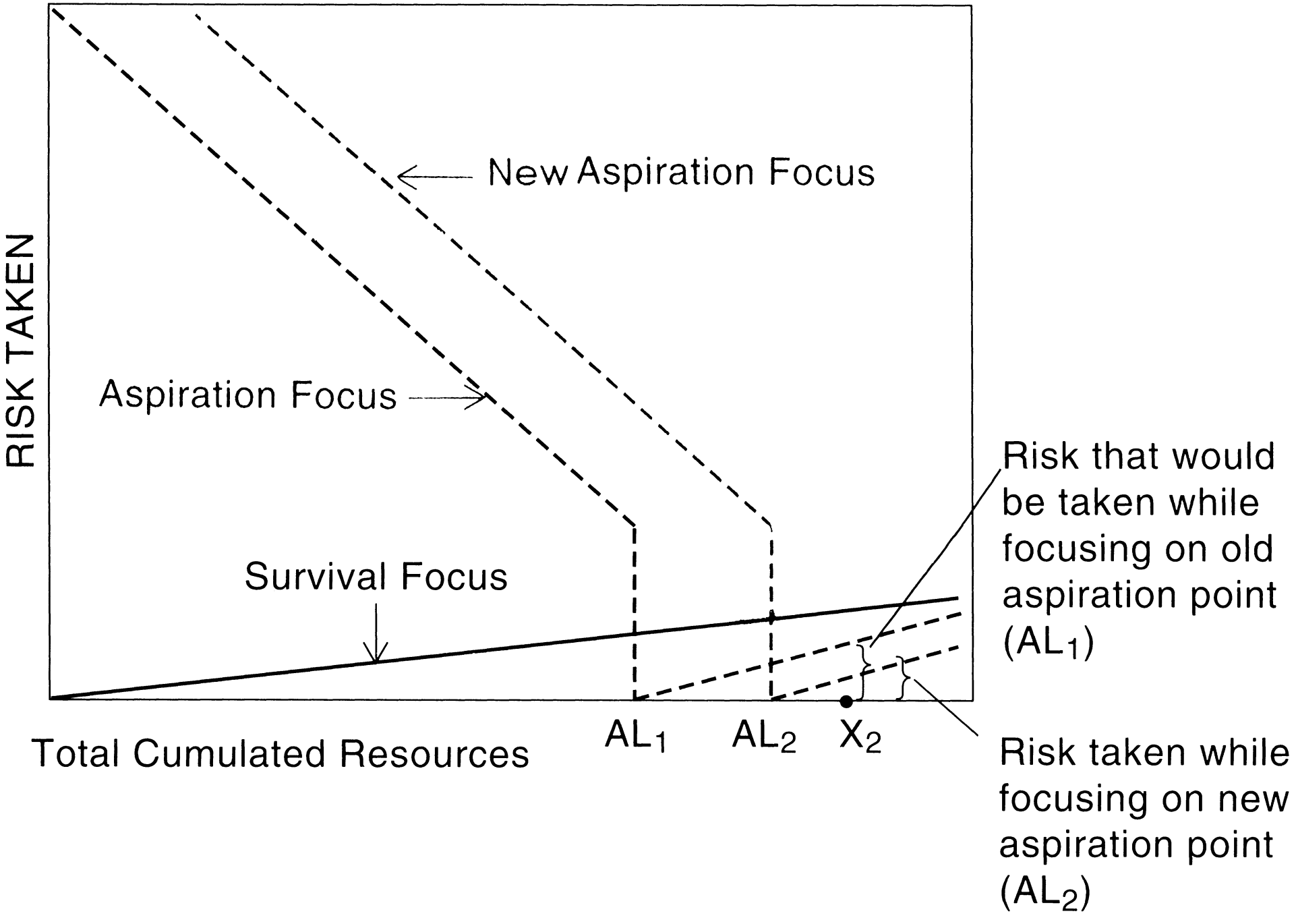


Figure 8.1 Project selection: The relation between a decision and its possible future outcomes.

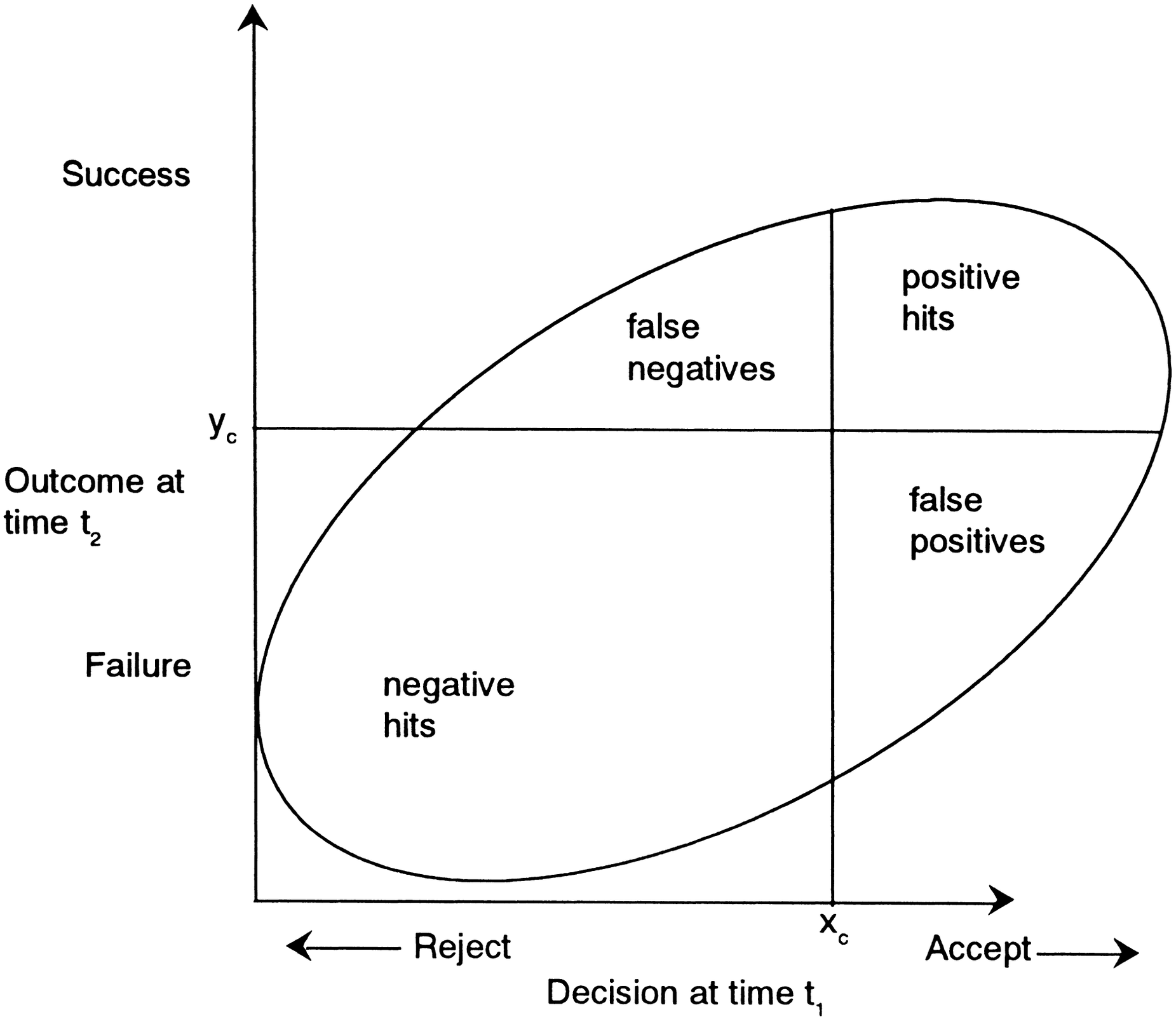


Figure 8.2 Raising the decision criterion: An increase in false negatives.

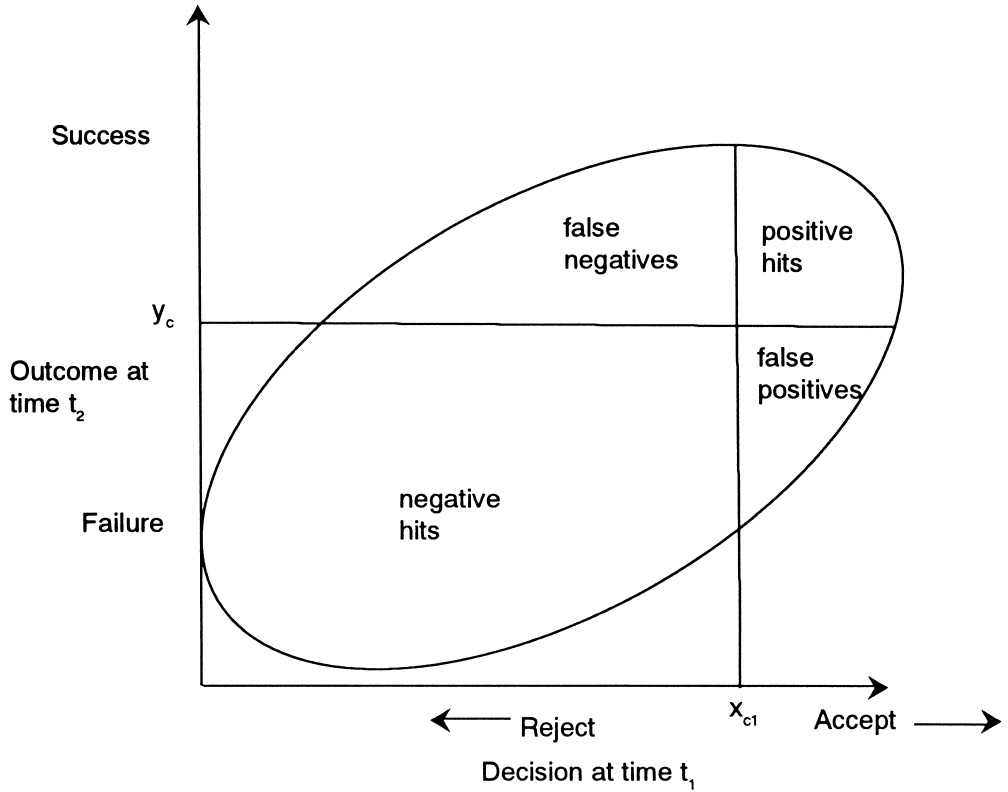


Figure 8.3 Lowering the decision criterion: A decrease in false negatives.

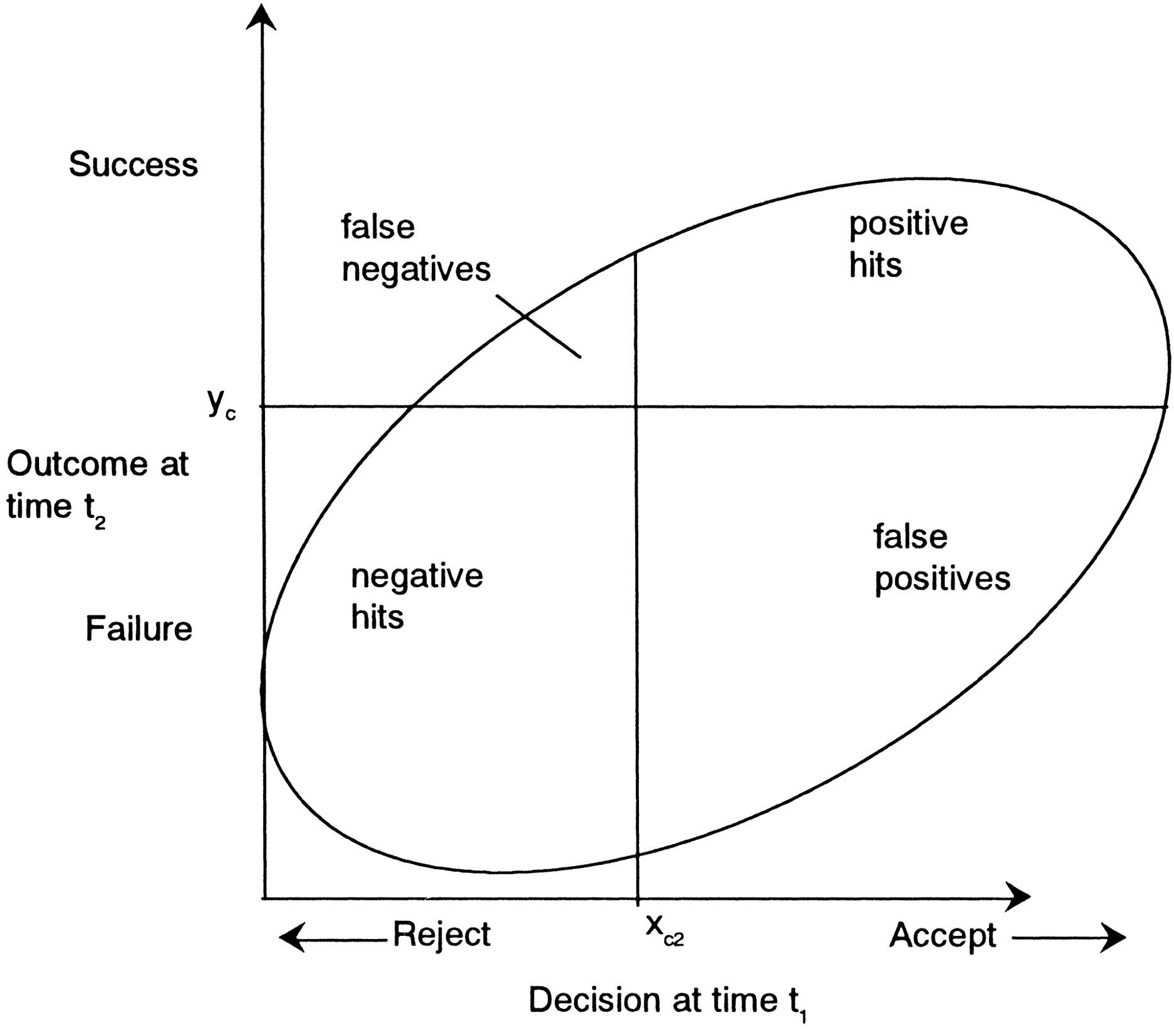


Figure 8.4 Lowering the success criterion: An increase in false negatives.

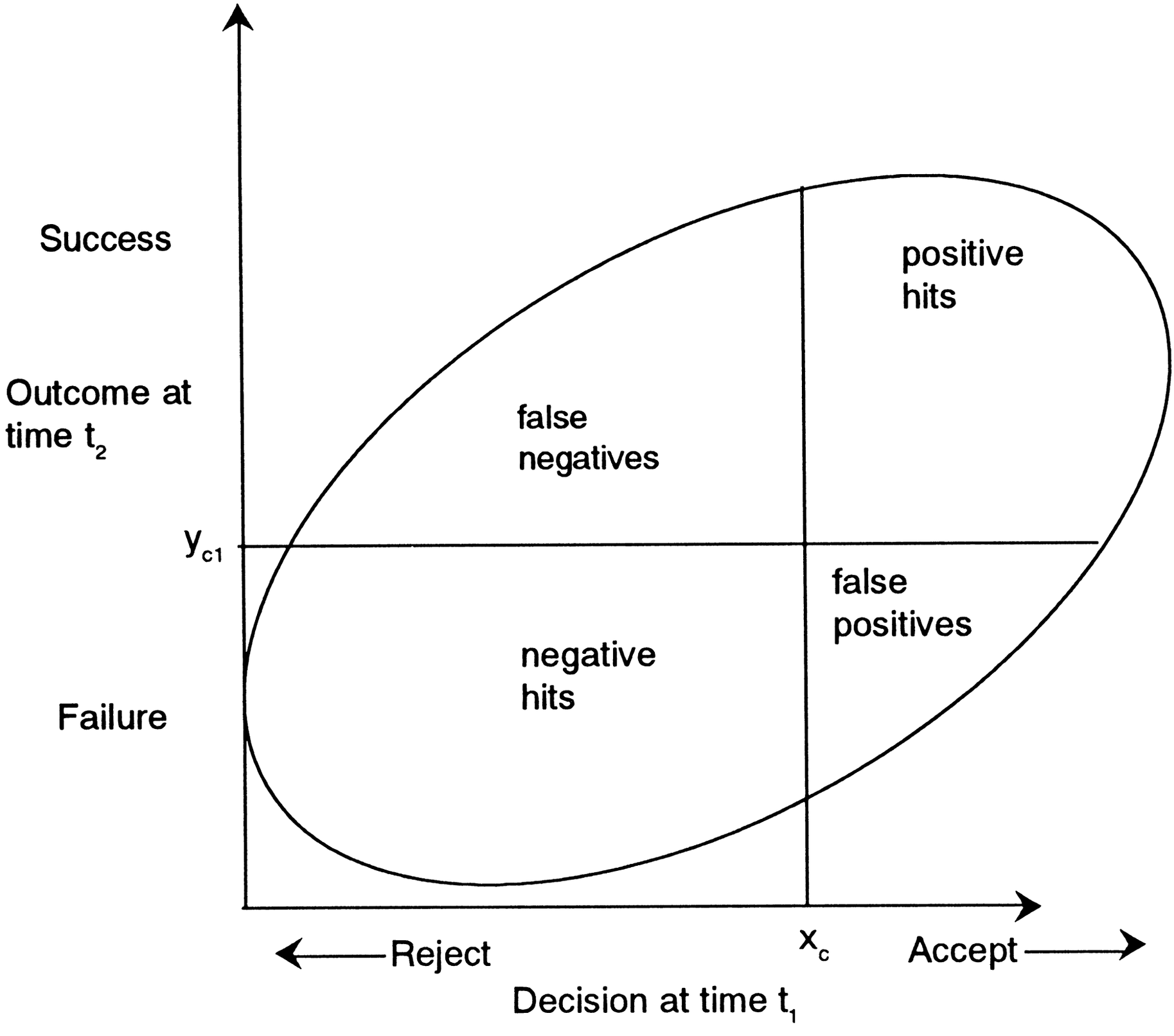
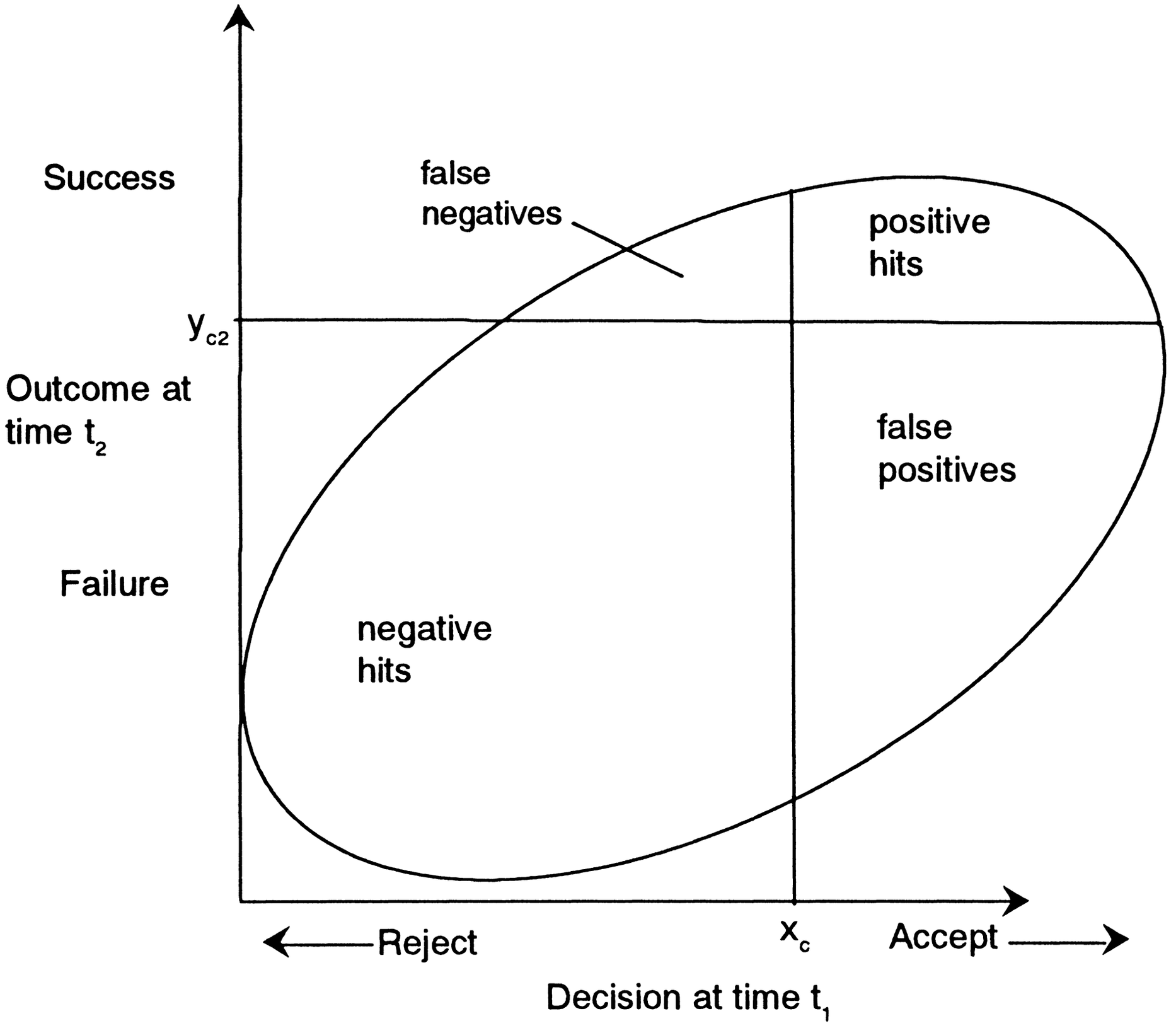



Figure 8.5 Raising the success criterion: A decrease in false negatives.