

the **dependent variable**. After the researchers formulate one or more hypotheses and develop research procedures, they collect data with which to test the hypothesis.

Hypotheses can be worded in several different ways, and identifying the independent and dependent variables is sometimes difficult. When in doubt, try to rephrase the hypothesis as an “if-then” statement: “*If* the independent variable increases (or decreases), *then* the dependent variable increases (or decreases).” Exhibit 2.4 presents several hypotheses with their independent and dependent variables and their “if-then” equivalents.

Exhibit 2.4 demonstrates another feature of hypotheses: **direction of association**. When researchers hypothesize that one variable increases as the other variable increases, the direction of association is positive (Hypothesis 1); when one variable decreases as the other variable decreases, the direction of association is also positive (Hypothesis 3). But when one variable increases as the other decreases, or vice versa, the direction of association is negative, or inverse (Hypothesis 2). Hypothesis 4 is a special case in which the independent variable is categorical: It cannot be said to increase or decrease. In this case, the concept of direction of

EXHIBIT 2.4 Examples of Hypotheses

<i>Original Hypothesis</i>	<i>Independent Variable</i>	<i>Dependent Variable</i>	<i>IF-THEN Hypothesis</i>	<i>Direction of Association</i>
1. As the number of stressors increases, the number of depressive symptoms increases.	Number of stressors	Depressive symptoms	IF the number of stressors is higher, THEN the number of depressive symptoms is higher.	Positive
2. As social support increases, caregiver stress decreases.	Social support level	Caregiver stress	IF social support is higher, THEN caregiver stress is less.	Negative
3. As years of education decrease, income decreases.	Years of education	Income	If years of education decrease, THEN income decreases.	Positive
4. Property crime is higher in urban areas than in suburban or rural areas.	Urbanization	Rate of property crimes	IF areas are urban, THEN property crime is higher compared with crime in suburban or rural areas.	NA
5. Depressive symptoms are higher for adolescents and older adults than for persons age 20 to 65.	Age of person	Depressive symptoms	IF people are age 13 to 19 or 65 or older, THEN their number of depressive symptoms is higher compared with people age 20 to 65.	Curvilinear

Source: Schutt (2005).