

## Chapter 5

# Protective and Promotive Factors in the Development of Offending

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*A protective factor is defined as a variable that predicts a low probability of offending among a group at risk, while an interactive protective factor is defined as a variable that interacts with a risk factor to nullify its effect. These factors were investigated in the Cambridge Study in Delinquent Development, which is a prospective longitudinal survey of 411 South London males from age 8 to age 48–50. Of 30 variables measured at age 8–10, 14 had primarily risk effects in predicting convictions up to age 50, 8 had mixed (linear) effects, 4 were not related to offending, and 4 (peer rating clever; extraversion, neuroticism, and number of friends) had promotive effects. Among troublesome boys, the most important protective factors were low extraversion, low neuroticism, parent harmony, few friends, and the mother having a full-time job. Among boys living in poor housing, the most important protective factors were good maternal discipline, parent interest in education, and low impulsiveness. Good parental supervision was an interactive protective factor because it reduced the probability of offending among troublesome boys but not among nontroublesome boys. Good child-rearing, small family size, and good maternal and paternal discipline had similar interactive protective effects for boys living in poor housing.*

Friedrich Lösel has made many outstanding contributions to knowledge, especially on the development of offending and antisocial behavior, and on the effectiveness of interventions in reducing offending and antisocial behavior. However, his contributions to knowledge about protective factors and resilience are especially pioneering, noteworthy, and influential. After carrying out a number of early important empirical investigations of these topics (e.g., Bender, Bliesener, & Lösel, 1996; Bender & Lösel, 1997;

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In T. Bliesener, A. Beelmann, & M. Stemmler (2011). *Antisocial behavior and crime: Contributions of developmental and evaluation research to prevention and intervention* (pp. 71–88). Cambridge, MA: Hogrefe Publishing. © 2012 Hogrefe Publishing

Lösel, 1994; Lösel & Bliesener, 1990, 1994), he and Doris Bender (2003) published an incredibly impressive, comprehensive, and exhaustive review that cemented their position as leading world experts on these topics. Therefore, it is highly appropriate for us to begin this Festschrift with a chapter focussing on protective (and promotive) factors. First, however, we will discuss the more usual topic of risk factors.

There has been a great deal of research on risk factors for offending. A risk factor is defined as a variable that predicts a high probability of offending. Usually, risk factors are dichotomized. This makes it easy to study interaction effects, to identify multiple risk factor individuals, and to communicate results to policy-makers and practitioners as well as to researchers (Farrington & Loeber, 2000). Risk-focussed prevention has become very popular, based on the idea that offending can be reduced by targeting and alleviating risk factors (Farrington, 2000). Risk factors are not necessarily causes; they predict a high probability of offending but do not necessarily cause a decrease in offending. The most convincing method of establishing causes of offending is to show that changes in a presumed causal factor within individuals are reliably followed by changes in offending within individuals (Farrington, 1988). For example, in the Pittsburgh Youth Study, which is a prospective longitudinal survey of over 1,500 boys from age 7 to age 30, changes within individuals in parental supervision, parental reinforcement, and involvement of the boy in family activities predicted within-individual changes in offending (Farrington, Loeber, Yin, & Anderson, 2002).

Many researchers have discussed the need to study protective factors as well as risk factors, and to strengthen protective factors as well as to reduce risk factors in intervention programs. Unfortunately, the term “protective factor” has been used inconsistently in the past. Some researchers have defined a protective factor as a variable that predicts a low probability of offending, or as the “mirror image” of a risk factor (e.g., White, Moffitt, & Silva, 1989). Other researchers have defined a protective factor as a variable that interacts with a risk factor to nullify its effect (e.g., Rutter, 1987), or as a variable that predicts a low probability of offending among a group at risk (e.g., Werner & Smith, 1982). All of these definitions are discussed below.

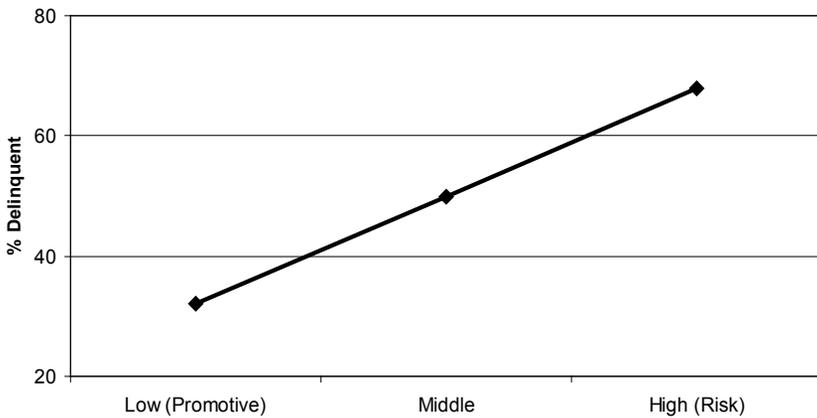
## Promotive factors

Loeber, Farrington, Stouthamer-Loeber, and White (2008), inspired by Sameroff, Bartko, Baldwin, Baldwin, and Seifer (1998), proposed that a variable that predicted a low probability of offending should be termed a “promotive factor”. It might be objected that a promotive factor is just “the other end of the scale” to a risk factor, and therefore that calling a variable both a promotive factor and a risk factor is rather redundant, using two names for the same variable. However, this is not necessarily true, and it depends on whether the variable is linearly or nonlinearly related to offending.

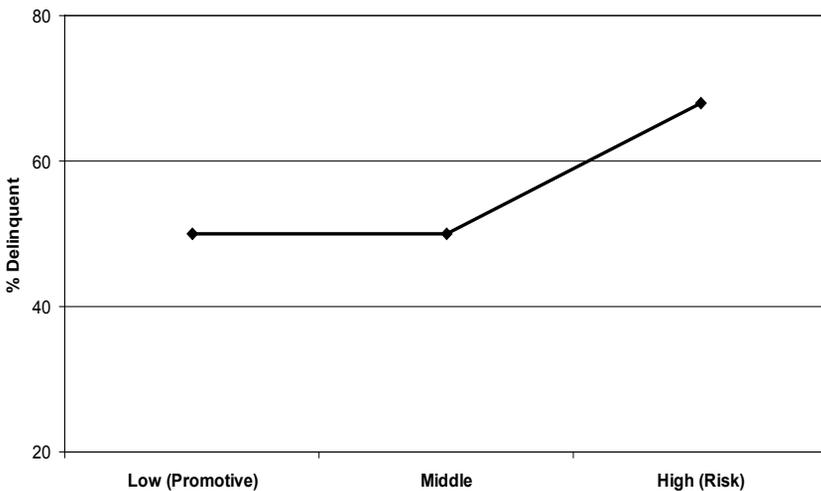
In order to investigate risk and promotive factors in the Pittsburgh Youth Study, Loeber et al. (2008, Chapter 7 this volume) trichotomized variables into the “worst” quarter (e.g., low school achievement), the middle half, and the “best” quarter (e.g., high school achievement). They studied risk factors by comparing the probability of offending in the

worst quarter versus the middle half, and they studied promotive factors by comparing the probability of offending in the middle half versus the best quarter. They used the odds ratio (OR) as the main measure of strength of effect; an OR of 2.0 or greater indicates quite a strong effect (Cohen, 1996).

Figure 1 shows a linear relation between a predictor and delinquency. The risk OR is 2.1, and the promotive OR is exactly equal at 2.1. In this case, the variable could be called both a risk factor and a promotive factor, but essentially it is linearly related to delinquency. Figure 2 shows a nonlinear risk effect. Here, the risk OR is 2.1, but the promotive OR is 1.0. This variable can be termed a risk factor but not a promotive factor. Conversely, Figure 3 shows a nonlinear promotive effect. Here the risk OR is 1.0, but the promotive OR is 2.1. This variable can be termed a promotive factor but not a risk factor. Most studies of the predictors of offending label them as “risk factors”.



**Figure 1.** Linear relation between a predictor and delinquency.



**Figure 2.** Nonlinear relation between a predictor and delinquency (risk effect).

However, it can be argued that only variables with a nonlinear relation like Figure 2 should be termed “risk factors”, while variables with a relation like Figure 3 should be termed “promotive factors”, and variables with a relation like Figure 1 can be called both, or “mixed”. Loeber et al. (2008, chapter 7 this volume) systematically investigated relations between predictor variables and two outcomes (violence and serious theft) and found many examples of pure risk factors and pure promotive factors.

As an example, Figure 4 shows two results from the prediction of violence in early adulthood (ages 20–25) by variables measured in early adolescence (ages 13–15) in the oldest Pittsburgh cohort of 500 males. School achievement was clearly a promotive factor. The percent of boys who were violent was 8% (high achievement), 21% (middle), and 21% (low achievement), with a promotive OR of 2.9 and a risk OR of 1.0. Here, high achievement is the promotive category and low achievement is the risk category. In contrast, peer delinquency was clearly a risk factor. The percent of boys who were violent was 9% (low delinquent peers), 11% (middle), and 40% (high delinquent peers), with a risk OR of 5.5 and a promotive OR of 1.2.

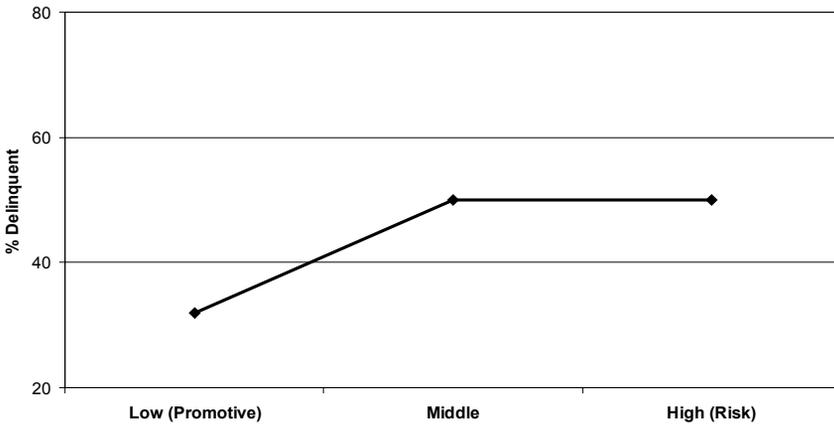


Figure 3. Nonlinear relation between a predictor and delinquency (promotive effect).

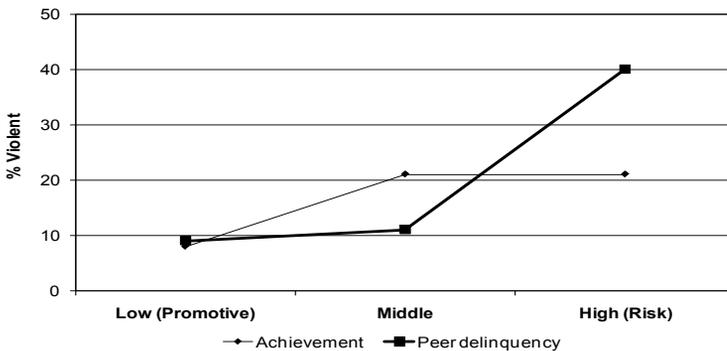


Figure 4. Prediction of violence in early adulthood from variables in early adolescence.