Item 5 of the provisional agenda*

Multidimensional approaches by Governments to promoting the rule of law by, inter alia, providing access to justice for all; building effective, accountable, impartial and inclusive institutions; and considering social, educational and other relevant measures, including fostering a culture of lawfulness while respecting cultural identities, in line with the Doha Declaration

Background documents received from individual experts**

Antisocial behaviour in juvenile offenders: A development bioecological approach

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ARTICLE

Antisocial Behavior in Juvenile Offenders: A Development Bioecological Approach*

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ABSTRACT
This review analyzes the bioecological model of human development as a comprehensive framework of adolescent antisocial behavior. Variables such as family and peers with antisocial backgrounds, antisocial peer attitudes, alcohol consumption, offensive behavior, education level, perception of safety in the community, and attention deficit hyperactive disorder, are discussed. This review supports the bioecological model as a plausible framework for understanding antisocial behavior during adolescence.

KEYWORDS
Adolescents; antisocial behavior; bioecological model

Juvenile delinquency -in Latin America in general and in Peru in particular- is an aspect of grave concern both for the authorities responsible for State policy in matters in public safety and justice, and for the population as a whole. However, few studies have been conducted to explore and identify predictors of this type of behavioral problem.

Such an effort would be valuable inasmuch as it identifies variables with an empirically proven link to antisocial behavior (Brook, Lee, Finch & Brown, 2012; Luengo, 2012) in order to devise preventive interventions on such malleable, non-static variables that may interrupt the causal chain that produces such behavior even at early ages (Holloway, Bennett & Farrington, 2006; Véronneau & Dishion, 2010).

In developed countries, there is a tendency to carry out epidemiological studies on behavioral problems in order to identify, and later alter, the causal variables of such behavioral problems through early interventions (Latimer, 2001; Farrington & Brandon, 2005). Knowledge produced by such research enables the design of intervention programs (either preventive or therapeutic) based on an empirical causal link between the “target”

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behaviors to be altered and those variables that cause or maintain them over time, enabling the interdiction of said causal chains.

When these programs have proven their effectiveness through robust results on the basis of their empirical precedents of evidence-based information management, they generate knowledge on how to undertake preventive practices in a given country. Thus, when these prevention programs become public policy, they are usually called evidence-based public policies (Farrington & Brandon, 2005).

In Peru, there are few quantitative studies of causal analysis of juvenile delinquency. In this regard, existant interventions base their hypotheses of change on variables usually reported by international literature, and not on variables in which causal analysis of antisocial behavior has been researched within the country’s context, i.e., on the basis of data from Peruvian adolescent offenders (Iza, 2002; Herrera & Morales, 2005; Morales 2009, 2011).

The currently prevailing trend of developing evidence-based social policies points to the need to link scientific research to public policy design, due to its greater effectiveness on social outcomes, and its effect on the improvement of the quality of public spending. The Ministry of Justice of Peru began implementing the first multi-sectoral public policy for the prevention and treatment of criminal behavior in adolescents in January 2014.

On the other hand, we must recognize the multi-causal nature of antisocial adolescent behavior (Bronfenbrenner, 2005; Bronfenbrenner & Morris 2006). Therefore, this review is restricted to a specific domain of criminological knowledge about the factors linked by the literature to antisocial adolescent behavior, such as some individual, interpersonal and contextual factors of antisocial behavior. Further studies are needed to develop a more comprehensive and updated understanding of this issue as long as it applies to the country (Iza, 2002).

With this in mind, our research paid special attention to Bronfenbrenner and Ceci’s bio-ecological model (1994) as a general theoretical framework for understanding the influence of interpersonal and individual processes of human development factors. When such processes experience significant levels of dysfunction, they can result in complex manifestations of risk and harm to the health and wellbeing of the developing person.

Adolescent risk behavior, especially antisocial behavior processes, are concrete examples of the results of processes that have been “contaminated” by other maladaptive processes. In his original theoretical model (ecological model of 1997), Bronfenbrenner stressed the importance of proximal and distal settings over the course of psychological development, while reducing that of the endogenous variables of the individual as factors that could encourage and facilitate, or interrupt and stop, human development processes.
Through his new bio-ecological model of human development, Bronfenbrenner collected individual and interpersonal variables, highlighting them in successive studies to establish the levels of their participation in or contribution to certain behaviors over the course of individual development, along with a methodological proposal for estimating their effects. His approach is of particular interest for our review, since it is a theoretical model of human development that addresses not only contextual and interpersonal factors but also individual factors in certain developmental phenomena (which are also applicable to social maladjustment processes, as in this case), and explains them by taking their additive effects into account through explicative causal mathematical models.

This review will briefly present Bronfenbrenner and Ceci’s bio-ecological development model (1994) and then identify some of the main individual, interpersonal, and contextual risk variables that are commonly reported in criminological research as those that have been highlighted in relation to their proven influence on antisocial behavior in adolescents.

**Bioecological model of development and antisocial behavior**

The first important theoretical development after the publication of the original ecological model (Bronfenbrenner, 2005; Bronfenbrenner & Morris, 2006), was the introduction of a critical distinction between the environment and the processes of human development. Within development research, the phenomenon of the interaction between mother and infant—and, more generally, the behavior of others towards the developing person—has traditionally been treated under the wider category of environment. In the bioecological model (Bronfenbrenner, 2005), a critical distinction between the concepts of environment and processes is made, with the latter not only being elevated to a key position, but also being defined in terms of its functional relationship with the environment and with the characteristics of the developing person.

Especially in the early stages, and in great measure over a given lifetime, human development takes place through processes of increasingly complex interactions between an active and evolving biopsychological human organism and the people, objects and symbols of its immediate external environment. To be effective, interaction must occur on a regular basis over extended periods of time. Bronfenbrenner and Ceci (1994), use the term ‘proximal processes’ for these enduring forms of interaction with the immediate environment. Examples of enduring patterns of proximal processes can be found in parent-child and child-child activities, solitary or group play, reading, the learning of new skills, studying, athletic activities, and the
performance of complex tasks. A second defining property identifies the triple source of these dynamic forces.

The shape, power, content, and direction of proximal processes affecting development vary systematically as a combined function of the characteristics of the developing person, the environment—both immediate and remote—, the nature of the results of development, and the social continuity and changes that occurred during the historical period in which the person has lived. According to Bronfenbrenner, an operational research design that allows simultaneous investigation is called the Process–Person–Context–Time Model (PPCT).

We may note that the person’s traits appear twice in the PPCT model: first, as one of the four elements that influence the “form, power, content, and direction of the proximal processes” and second, as a result of development, which is to say, the developing person’s traits at a later point in time result of the joint, interactive and cumulative effects of the four main components of the model. In short, according to Bronfenbrenner, in the biocological model, the characteristics of the person are both producers and products of development, which gives us greater understanding of the motivations of adolescent behavior.

A valid inference on the basis of the aforementioned statements is the interpretation of criminogenic needs posed by the literature of criminological risk as the result of the psychological development requirements that have had their prosocial, pro-adolescent development contents (needs corresponding to human development at this age, such as acknowledgment by their environment, identity, ascription to reference groups and acceptance by them, ascendance over others, self-esteem, a sense of self-efficacy and self-conceptualization) replaced by contents of an antisocial nature based on dysfunctional proximal processes presented in the previous statements, leading to maladjusted behavioral results in adolescence.

From an evolutionary analysis or from a focus on the life course of delinquency (developmental criminology), there still is not enough research to clarify the psychosocial mechanisms whereby proximal processes that should lead to a healthy and adaptive socialization through prosocial behavior are altered in terms of content and are led towards dysfunctionality and behavioral maladaptation (Weatherburn & Bartels, 2008; Weatherburn, Cush & Saunders, 2007; Welsh, Schmidt, Mckinnon, Chattha, & Meyers, 2008).

This becomes relevant when we analyze and recognize the degree to which the environment and interactions with people who share said environment have an influence on adolescent behavioral outcomes in the long term. To better illustrate the impact to which we refer, we will briefly outline the effects of proximal interactions laid out by Bronfenbrenner as
dynamic dimension variables that affect the life course of adolescent development.

**Criminogenic factors, proximal processes, and antisocial behavior**

Criminological literature has often used censal or epidemiological studies to demonstrate the influence of environmental risks on antisocial behavior. For example, research that has highlighted family size or location of neighborhoods and schools point out that such factors appear to be good predictors of juvenile delinquency (Gavazzi, Yarceck, Sullivan, Jones & Khurana, 2008). However, such findings appear to simplify the actual complexity of developmental processes that have been affected by criminogenic socialization, experiences of abuse, diminished interpersonal relationships, and other dynamic variables that (epidemiological) studies of this type seem to ignore or at least not consider in their measurements.

The structural dimension of the factors that increase a given person’s risk of committing crimes, perpetrating antisocial acts, and being contacted by the criminal justice system is a valid, albeit small, dimension of the complexity of the interaction processes that transpire historically until a developing person manifests such behaviors for a sufficiently prolonged period of time and ends up drawing the attention of the authorities and getting arrested.

Using the bioecological model in the analysis of the factors associated with adolescent antisocial behavior is valuable because it highlights the dynamic dimensions acquired by the classical and widely studied factors of criminogenic risk in international criminological literature (Walker, Bowen & Brown, 2013; Rutter, Giller & Hagell, 1998; Upperton & Thompson, 2007), and thus helps us understand the importance of vital records as evidence of functional interactions with the environment and its behavioral impact on active individuals such as adolescent offenders.

The theoretical expectation that the effects of proximal processes on the development of children and adolescents would vary depending on the quality of the environment rests on the following basis. In environments characterized by disorganization and deprivation, it is more likely that the manifestations of dysfunction in children would be more frequent and more severe, resulting in children attracting more attention and making their parents more involved (though not necessarily in the case of juvenile offenders, in whose case parental involvement/competence tends to be diminished even despite their demands). On the other hand, in more stable and healthy environments, such manifestations are less intense and it is more likely that parents be attracted by, and responsive to, gratifying signs of progress in the development of their children.
Furthermore, most human beings, and especially parents, in all socioeco-
nomic levels have the capability and motivation to respond to the immedi-
ate physical and psychological needs of their children. The situation is
rather different in regards to enabling their children to acquire new know-
ledge and skills. In this domain, or parents themselves must possess the
ability and desired knowledge, or should have access to resources outside
the family that can provide the experience necessary for their children
(education, security, health). Upon bringing them together, the aforemen-
tioned considerations lead to the hypothesis of differential impact of prox-
imal processes as a joint function of the quality of the environment in
terms of available resources on the one hand, and the nature of the out-
come in terms of competence versus dysfunction on the other.

Some indicators of the validity of this hypothesis are provided by the
results of a study plotting the differential effects of parental monitoring of
school performance of high school students living in the three most com-
mon family structures found in a sample size of more than 4,000 cases.
The sample was subsequently stratified in two levels according to maternal
education, taking the completion of secondary school as the dividing point.

Parental monitoring refers to efforts made by parents to stay informed
about their children’s activities outside the home and the limits imposed by
the former on the latter. Once again, results revealed that the effects of
proximal processes were more potent than the effects of the environmental
context in which they occur.

For students who do not do well in school, for example, parental moni-
toring apparently can achieve enough by ensuring stability of time and
place, thus enabling some learning to occur. However, adequate perform-
ance in a post-secondary school requires high levels of motivation, focused
attention, prior knowledge, and especially actual work with the material to
be learned. These are all qualities that the stability of time and place cannot
provide for themselves. The influence of other people who can facilitate
such interactions between the content to be learned and the learner is key.

Bronfenbrenner, in a second feature of the bioecological model preserved
from his earlier prototype (Bronfenbrenner, 1999), includes the conceptual-
ization of the ecological environment as a series of nested systems (concen-
tric circles) ranging from “micro” to “macro.” Although the particular
design includes only those two extremes, it illustrates a general ecological
principle: the power of developmental forces that operate in any of the lev-
els of environmental systems, which depends on the nature of the environ-
mental structures existing at that level and at all higher levels of
the system.

Bronfenbrenner argues that the study of behavioral problems as dysfunc-
tional results of development should not simply be restricted to the
presence or absence of structural predictors of risk, or assessed through paradigms of isolated analysis, such as those focusing on the family, neighborhood, educational levels, or the type of peers, or even solely on variables concerning the individual (Rutter, in Heilbrun, Sevin, & Redding, 2005; Herrera & Morales, 2005).

His proposal is to simultaneously analyze the additive effect of all these development variables, measured by how the individual perceives and experiences such dynamic influences, and to recognize in these impressions objective data to realize whether these factors exert a behavioral criminogenic influence.

In the aforementioned case regarding paternal monitoring, this presumption would imply that the same increment in paternal monitoring would have the same effect on every kind of family structure in both levels of maternal education. In order to illustrate this, the author proposes four principles dealing with how the current states of existence manifested in behavior (current behavior is a result) are explained substantially, due to the vital antecedents and the personal perceptions that determine the current situation of an individual. We now turn to explaining each one of them applying them to the concrete case of juvenile delinquency.

**Life course principle #1**

According to this principle, the life course of an individual’s development is seen as inserted in, and powerfully shaped by, conditions (endogenous variables of neurological, mental, physical, and other kinds of health) and events (occurrence of social situations) taking place in the historical period in which a person lives. In the case of delinquency, a history of attention deficit, hyperactivity, early behavioral disorders, negligence, mistreatment, abuse, or third parties’ dysfunctional influence at an early or contemporary age, are all examples of how the present and the past contribute to explaining the current personal circumstances of a developing individual. Parents with criminal records, antisocial friends, low educational levels, or socialization within criminal circles jeopardize personal safety and integrity, yet do not determine criminality in the course of life, but still contribute differentially to it.

**Life course principle #2**

According to this principle, an important factor that influences the course and result of human development is the temporal planning of social and biological transitions inasmuch as they relate with age and culturally defined role expectations, as well as opportunities over the course of a
lifetime. The applicable research design is one that compares early initiation (a precocious beginning of career in crime) and a later one (delayed beginning of a career in crime) with a particular transition vis-à-vis a subsequent life (Bronfenbrenner & Morris, 2006).

In this sense, variables such as the age in which criminal activity begins, expressed in criminal precociousness or a delayed initiation in the experience of breaking the law, refer to possible cumulative effects that evolutionary transitions produce in a developing person (in addition to cultural expectations regarding masculinity and its social role), and have the power to affect the course of their future lives (by adding chronicity).

**Life course principle #3**

According to this principle, the lives of all family members are interdependent, that is, the reaction of a family member to a historical event in particular affects the developmental course of the rest of the family, both between different generations and within each one. The basic research design corresponding to this principle involves examining the differential impact that historical events and role transitions have on the different members of the same family who experiment the same events and transitions.

In the concrete case of delinquency, the involvement of parents or relatives in crime has consistently appeared in the criminological tradition as a structural variable; nevertheless, there are counterfactual examples of adolescents who lacked relatives who faced criminal justice, but received sentences for breaking the law nevertheless (Farrington, Jollife, Loeber, Stouthamer-Loeber & Kalb, 2001).

**Life course principle #4**

According to this principle, within the limits and opportunities provided by the historical, cultural, and socioeconomic conditions in which they live, human beings influence their own development—for better or for worse—through their own choices and actions. Concrete examples of this principle known as “human agency” are precisely those that avoid phenomena of causal determinism (systematic regularities of certain events that have been reported with a predictable behavior in diverse contexts over time) that many researchers insist on preserving within their research.

Assuming this bioecological model principle means accepting that transcultural behavioral regularities of certain pro-delinquency variables integral to the corpus of criminological knowledge have a status of provisional truths, and can be modified by discovering different behaviors in different human contexts, both due to cultural effects, as well as due to the
perspective of human agency, in which subjects simply behave in different ways from those which other groups tend to in other contexts in regards to certain typical variables.

Finally, changes in environment over history and life course are not the only temporal forces shaping development. Changes taking place in a much smaller time scale may also have consequences of the same magnitude. The case of the dissociative effect in the development of environmental instability, the lack of a clear structure, and the unpredictability of events, are all clear examples of what happens in juvenile delinquency. A growing body of researchers in development criminology have been looking in the same direction since the late 1970s.

For instance, many families with stepparents seem to be characterized by the lack of parental consistency and clarity of roles (Baumrind, 1989; Hetherington & Clingempeel, 1992; Pasley & Tallman, 1987; Bronfenbrenner, 1999). Moreover, the ultimate sources of such instability are often stressful conditions originating outside the family environment, such as work, school, the neighborhood, or society at large. Under such circumstances, the power of proximal processes to significantly contribute in psychological development may be affected substantially. This could explain to some degree the effects evidenced in diminished proximal processes on the psychological development of adolescent offenders (deficits, poor performance, etc.).

Subsequent research has supplied more evidence about how stress and inconsistency within the family, often originating from without, have dissociative effects over the development of children and adolescents (Bronfenbrenner & Ceci, 1994). For instance, the degree of conflict or harmony in the parents’ marriage influences patterns of parent-child interaction, which in turn also affects the child’s performance and his/her social behavior inside and outside the classroom. At the same time, the quality of the marital relationship has proven to be affected powerfully by extramarital factors such as work conditions, the kind of neighborhood in which the family resides, friends, and other relatives (Bronfenbrenner & Ceci, 1994).

According to Bronfenbrenner, environmental contexts influence proximal processes and the behavioral results of development, not only in terms of the resources made available to the developing person, but also inasmuch as they can provide the stability and consistency over time that proximal processes require. This principle was included in the first distinctive property of the bioecological model through the stipulation that in order to be effective, proximal processes “must occur regularly and over extended periods of time.”

The life conditions of many adolescent offenders are unable to provide them with resources favoring their personal development in the short, medium, and
long term. In many cases, their cumulative disadvantages (in terms of family, community, and peers, as well as personal) compromise their ability to stay away from a life of crime, and such circumstances as a self-representing group makes them homogenous enough to analyze the predictive magnitude of some variables that are reported by juvenile criminology as causal or explicative factors.

These variables are often precisely those linked to the proximal processes of interaction alluded to by the bioecological model (Bronfenbrenner & Morris, 2006), and confers them with a causal capacity that may be examined simply through a multiple linear regression model, paying attention to the statistical presupposition of homogeneity in regression (Bronfenbrenner & Ceci, 1994), on the basis of similar sociodemographic conditions that this concrete age group tends to report. With adolescent offenders being very close in sociodemographic variables due to their common socioeconomic origins, no new differences would be added in a multilevel regression, for example.

The criminological tradition showing vast consensus and accumulation of evidence of the causal effect of individual variables such as hyperactivity, age of initiation in criminal activities, problematic consumption of alcohol, and level of education (commonly reported as microsystem variables by Lahey, Moffitt & Caspi, 2003) in antisocial adolescent behavior (Walker et al., 2013); along with interpersonal variables such as the antisocial history of the family, the antisocial history of the peer group and their behavioral influence over the adolescent (reported as mesosystem variables by Farrington & Welsh, 2007; Farrington et al., 2001; Altschuler & Brash, 2004; Andrews & Bonta, 2006), and finally of contextual variables such as the perception of resources for communal security and the perception of social disorganization (reported as exosystem variables by Frías-Armenta, López-Escobar, & Díaz-Méndez, 2003; McGuire, 2004; Kirkcaldy, Siefenb, Surall & Bischoff, 2004; Lahey et al., 2003; Latimer, 2001; Gavazzi et al., 2008), it is useful to examine from a bioecological focus whether variables remain valid or not for the case of Peruvian adolescent offenders, with their predictive qualities taken into account in the design of future preventive interventions, as has been the case of other studies carried out in the same terms (White & Renk, 2012).

References


