

Harm: a Neglected Concept in Criminology, a Necessary Benchmark for Crime-Control Policy

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Abstract

Despite the centrality of harm to crime and criminalization and increasing interest in harm as a basis for crime-control policy, there has been little systematic reflection within criminology on criminal harms or their identification, evaluation, and comparison. In this paper, we review the literature on the harms of crime and related concepts, i.e., the perceived seriousness and cost of crime, impact of criminal victimization, and drug-related harm. Each of these related bodies of work suggests either a reason, by way of inadequacy, or a means, by way of insight or analytical method, to advance a harm-based approach. We then identify substantial challenges in assessing the harms of crime and conclude that, despite these challenges, a systematic empirically-based assessment of the harms of criminal activities can serve important roles in policy analysis.

Keywords

Harm; crime; crime control policy; cost of crime; perceived seriousness of crime

1. Introduction

Traditionally, one of criminology's core aims — perhaps its central aim — has been to establish the causes of crime (e.g., Cullen and Agnew, 2011). With the

* Corresponding author, e-mail: Letizia.Paoli@law.kuleuven.be. This article derives from a larger project on organized crime in Belgium, entitled "Danger: Appraising the Dangerousness of Organised Crime" and funded by the Belgian Federal Science Policy Office. For their continuous feedback throughout the three-year project, we would like to thank our project partners: Prof. Dr. Tom Vander Beken, "Danger" coordinator; Andries Zoutendijk (Dutch Police Academy) and Dr. Noel Klima (European Crime Prevention Network), who worked as project researchers; and Profs. Drs. Nicholas Dorn and Henk van de Bunt (both Erasmus University). Several other scholars also read preliminary versions of this paper and we are grateful to them for their helpful and encouraging feedback: Prof. Ivo Aersten (University of Leuven), Prof. Dr. Susanne Karstedt (University of Leeds),

development of opportunity theories and situational crime prevention, attention has extended to the crime event. Notwithstanding the growing concern for victims of crime among the general public, policy-makers, and academics (e.g., Spalek, 2006; Walklate, 2007) and increasing interest in harm as a basis for crime-control policy, neither criminology nor the related social sciences have developed the means to systematically identify, evaluate, or compare the harms associated with different types of criminal activities, as distinct from the perceived seriousness of crime, the cost of crime, or the impact of victimization. Harms can take many forms, including violations of functional integrity, material interests, reputation, and privacy, and are borne across society, by individuals, institutions, and the environment, both physical and social (Greenfield and Paoli, 2013). As an historical matter, both policy-makers and, to a lesser extent, academics have tended to view crime as a “harm” in its own right, making few attempts to distinguish the disparate consequences of one criminal activity from another.

In this paper, we first consider the status of harm in crime-control policy, arguing that harm is central to crime and providing evidence of the trend towards the consideration and use of harm-based approaches to crime control. In the second section, we review the literature on the harms of crime and related concepts; in the third, we explore five major sets of challenges to assessing the harms of crime. In the fourth section, we conclude with a short discussion of the potential roles of a systematic empirically-based assessment of criminal harms in policy making.

2. The Status of Harm in Crime-Control Policy

In criminal law theory, the harm “caused” by a criminal activity is, with few exceptions, considered crucial in the legal doctrine to justifying the very criminalization of such an activity and the assignment of penalties (e.g., Ashworth, 2006: 30–39). In recent times, members of wide-ranging policy communities, including that of crime control, have turned their attention to harm reduction as a policy goal (e.g., Sparrow, 2008).

2.1. *The Centrality of Harm to Crime*

According to a dominant view among legal scholars and policy-makers, harm constitutes *a*, if not *the*, reason why most actions we now call “crimes” have been criminalized: it serves as “the fulcrum between criminal conduct and the punitive sanction” (Hall, 1960: 213). In fact, it is the imposition of harm — i.e., the impairment of an interest deemed worthy of legal protection — that makes

the perpetrator's conduct sanctionable (see also Eser, 1966; MacCormick, 1982: 24–27; LaFave, 2003: 10–11; Ashworth, 2006: 30).

In old German and Roman law, both tort claims and public prosecutions were instituted for the restitution or prevention of injuries done to certain goods, interests or rights of the individual members of the community (*delicta privata*) or to the community itself (*crimina publica*) (Mueller, 1955). The centrality of harm was later obscured by the conversion of harms to individuals to harms to the interests of the king or state (Eser, 1966: 351). As a result, a formal definition of crime has prevailed and most statutory definitions in both common and civil-law countries now speak of crime as an act or omission in violation of a law with punishment annexed to it (*ibid.*).

In 1859, John Stuart Mill (1969: chapter 1, para. 9) emphasized anew the centrality of harm to crime, by establishing the harm principle in his essay “On Liberty”: “the only purpose for which power can be rightfully exercised over any member of a civilized community against his will, is to prevent harms to others.” Given its exclusivity, many contemporary observers (most influentially Feinberg, 1984) find that Mill's formulation goes too far. However, in common law countries harm is still mostly considered *a* or *the* key, although not the only, criterion for legitimizing criminal law intervention (e.g., LaFave, 2003: 10–11; Ashworth, 2006: 30; Husak, 2008; Simester and von Hirsch, 2011).¹ In continental Europe, the slightly different but functionally equivalent notion of legally protected interest has come to the fore (von Hirsch, 2003; Peršak, 2007). Albeit in most cases only implicitly, the penal codes and sentencing policy of modern societies have always reflected the (perceived) seriousness of the offences, for example by establishing maximum sentences or regarding sentences that were grossly excessive in relation to the gravity of the offence as unfair (von Hirsch, 2009: 118). The sentencing-reform efforts undertaken since the 1970s by several European countries (particularly, Finland, Sweden, and, later, the UK) as well as the sentencing guidelines issued by some of these countries and some US states go one step further and, under the influence of the so-called “desert” or “retributive” theories, explicitly require the severity of the penalty to be proportionate to the seriousness of the offence (von Hirsch, 2009). In this legal debate, the seriousness reflects the harm done or risked through the commission of the act but also considers the culpability of the offender, with some scholars giving more emphasis to harm (e.g., Ashworth, 2006: 35–38) and others to culpability (e.g., Alexander, 1994).

¹ Other scholars are more critical either of the harm principle itself (e.g., Ripstein, 2006; Duff, 2013) or of its contemporary extensive interpretations that, in their view, have ended up legitimizing too many criminal offences and repressive interventions (e.g., Harcourt, 1999; Stewart, 2010). More generally, some of these (e.g., Duff, 2013) and other scholars (e.g., Wells and Quick, 2010: 10) are skeptical of the possibility of finding a single founding principle of criminal law.

2.2. *Harm as a Base of Crime-Control Policy*

Several national and regional policy-making and law-enforcement agencies in Europe and elsewhere are currently considering “harm” as a basis for prioritizing and targeting criminal activities. The United Kingdom (UK) offers the clearest example: “the overarching aim of the [Organised Crime] Control Strategy is to achieve a tangible and lasting reduction in the harm caused to the UK by organised crime” (SOCA [Serious Organised Crime Agency], 2008: n.p.). Whether SOCA’s successor agency, the National Crime Agency, will maintain this position remains to be determined; however, an initial Home Office (2011) planning document for that agency continues to embrace the concept of harm.² Agencies in other nations — e.g., the Australian Crime Commission, the Canadian Criminal Intelligence Service, the Belgian Justice and Home Affairs Ministries and the Dutch Ministry of Justice — are considering related approaches (Dorn and van de Bunt, 2010; vander Beken et al., 2011; U.S. Department of Justice, 2011; Tusikov, 2012).

At the level of the EU, the past decade’s shift in emphasis from “organized” crime to a combination of organized and “serious” crime resonates with harm (Dorn, 2009), as serious crimes are identified implicitly or explicitly on the basis of the harms they supposedly cause. For example, the 2009 “Stockholm Programme,” the third EU multi-annual programme to put an “area of freedom, security and justice” in place, calls for “protection against serious and organized crime” and for tackling a selection of high-priority criminal phenomena at the EU level: trafficking in human beings, sexual exploitation of children and child pornography, cyber-crime, corruption, and drugs (European Council, 2010). In its turn, the Treaty on the Functioning of the European Union (TFEU 2008) provides the legal competence for the EU to act in seeking to implement the policy. Article 83(1) authorizes the European Parliament and the Council to establish minimum rules concerning the definition of criminal offences and sanctions in the areas of particularly serious crime with a cross-border dimension and one of the two criteria set for such a selection — the nature or impact of such offences — explicitly refers to harm. However, to our knowledge, no empirical assessment has been done to inform the concrete selection of the crimes.

The United States does not explicitly prioritize or target criminal activities on the basis of harms; however, harm has played a part in the crime-policy debate over time. See Maltz (1990: 19), Rubin (1999), and Sherman (2007) for law-enforcement and academic examples. Possibly signaling greater practical interest, the U.S. Department of Justice (2011) issued a solicitation in 2011 for studies to “describe and quantify the level of harm from [international organized crime].”

² Mackenzie and Hamilton-Smith (2011) discuss some of the difficulties encountered by SOCA in implementing a harm-based approach.

Since the 1970s, concern has risen on both sides of the Atlantic about the individuals who are harmed by crime, as evidenced by the extensive media coverage of victims and their experiences and the wide range of victim initiatives and legislation. Reflecting these cultural, political, and legal changes, victimology has also expanded significantly (e.g. Walklate, 2007).

Largely independent of that development, some critical criminologists (e.g., Hillyard and Tombs, 2004) have gone as far as proposing that the notion of crime should be replaced by that of social harm and that the reduction of social harm should become the key goal of broader social policy, not just crime control. Explicitly or implicitly echoing such stances, other criminologists have applied the concept of harm to state crimes, mass atrocities and, in the new field of green criminology, to a variety of activities harmful to the animals and the environment, which have not been yet (fully) criminalized (e.g., Beirne and South, 2007; White, 2011).

In a separate but related policy arena, several European countries and a smaller number of non-European countries have built harm-reduction programs into their national drug control strategies (EMCDDA, 2011). For the most part, they have focused on demand-oriented drug policy, but calls for supply-oriented applications of harm reduction principles are intensifying (e.g., European Council, 2005: 2; UK Drug Policy Commission, 2009; Greenfield and Paoli, 2012). Some drug-policy scholars have recommended minimizing the total harm associated with drug consumption, drug production, distribution, and control as the goal of drug policy (e.g., Caulkins and Reuter, 1997 and 2009).

3. Harms of Crime and Related Concepts in the Literature

Despite the centrality of harm to crime and criminalization and the increasing interest in harm as a basis for crime-control policy, there has been little systematic reflection on criminal harms or their identification, evaluation, and comparison. A publication search in *Criminal Justice Abstracts*, using “harm” and “crime” as keywords, yielded only 11 “hits” as of September 2012, of which five concerned harm reduction in drug and alcohol control policy and two concerned the harm suffered by victims of violent crimes. While there is a burgeoning literature in law, further searches revealed only a very small number of pertinent studies dealing empirically or systematically with the harms of crime and we review these studies below. Larger bodies of research have developed instead around four related concepts that we also consider: the perceived seriousness of crime, cost of crime, impact of criminal victimization, and evaluation of drug-related harm. Each related body suggests either a reason, by way of inadequacy, or a means, by way of insight, to advance a harm-based approach.

3.1. *Perceived Seriousness of Crime*

Starting with Sellin and Wolfgang (1964), a number of predominantly North American studies have addressed the perceived seriousness of crime. Typically, perceived seriousness is considered a function of the perceived consequences and wrongfulness of an act (Stylianou, 2003: 42). This focus on harmfulness — termed “consequences” — and wrongfulness dates back to Warr (1989), who was the first to identify these two components of seriousness. Despite the relevance of harmfulness in people’s perceptions of seriousness, public opinion polls and surveys provide limited insight into harm. The possibility of factual misjudgement and a lack of reflection on the criteria for judging known facts diminish the value of these instruments (von Hirsch and Jareborg, 1991: 6; Ryberg, 2004: 60). For example, according to Cohen (1988), US public-perception surveys tend to underestimate the harm associated with violent crimes relative to property crime.

3.2. *Cost of Crime*

A large economic literature has developed largely since the 1970s, which implicitly, if not explicitly, equates the costs with the harms of crime.³ This literature has traditionally distinguished among costs caused directly by criminal behavior; those incurred by society in response to crime either to deter or prevent future incidents or to exact retribution; and those incurred by the offender (Cohen, 2005: 9). The first category of costs, i.e., direct costs, relates most closely to harm and includes productivity losses, medical and mental health care, direct property losses, indirect costs of victimizations, pain and suffering, loss of quality of life, loss of affection or enjoyment, death, and the legal costs of tort claims (Cohen, 2005: 10–11). Czabański (2008: 10–17) offers a different categorization.

For the most part, the earliest studies did not go beyond the out-of-pocket “tangible costs” of victimization. Attempts to account for “intangible” costs began with Thaler (1978), who used a method known as “hedonic valuation” to focus on differences in property values in high-crime and low-crime areas.⁴ Phillips and Votey (1981) were the first to incorporate value-of-life estimates, using so-called “accounting-based” methods. Cohen (1988) followed with monetary estimates of pain,

³ Cost of crime estimation dates back to the 1931 Wickersham Commission. In this discussion, we do not attempt a comprehensive review of the literature and the methodologies that have emerged from it; rather, we offer a sampling of advancements and the issues around them. For more complete discussions, we suggest Heaton (2010), Roman (2011) and Centre for Criminal Justice, University of York (2008), the last of which is a web-based literature review as of August 7, 2013, available online at: <http://www.costsofcrime.org/AnnotatedBibliography.php>.

⁴ Heaton (2010) provides an accessible overview of this approach and two other principle approaches in the cost of crime literature, i.e., accounting-based methods and contingent valuation.

suffering, and lost quality of life for non-fatal injuries, using jury award data. More recently, Roman (2011) uses jury award and newly compiled criminal event data to estimate the prices of victimization in different types of serious person crimes, less serious property crimes, and least serious property crimes. In so doing, he edges closer to addressing the fullness of ‘harm,’ as we envision it.

The cost-of-crime literature has also imported “contingent valuation” to ask potential victims how much they would pay to avoid certain crimes (e.g., Cohen et al., 2004). This method can capture the total cost of crime, including intangibles, but depending on how the question is framed may not provide a means of identifying particular components of that cost (Cohen and Piquero, 2009: 35).

As a related matter, the calculation of the “value of statistical life” or “VSL” in regulatory analysis provides a means to identify society’s willingness-to-pay for a small reduction in the risk of death. Although one could ask individuals what they would pay to avoid the risk, the willingness-to-pay for a VSL typically derives from empirical evidence, such as that pertaining to wage-risk tradeoffs and price differentials.^{5,6}

Each of these methods, although capable of shedding light on one or more dimensions of harm, has its drawbacks in contributing to a complete measure; here, we note a few examples. Differences in property values can provide estimates only for crimes directly linked to neighborhoods (e.g., robbery) and are limited in their ability to estimate the costs of specific types of crime, as crimes tend to bundle together in certain areas (Heaton, 2010: 4). It is also difficult statistically to separate the effect of crime rates on housing prices from other neighborhood characteristics that tend to occur along with crime (Heaton, 2010: 4). Valuing human life on the basis of income-earning potential, largely a past practice, offers limited insight when victims are also criminals (see Fattah, 1992); VSL calculations represent a substantial advancement, but they do not value life *per se*. Estimates of intangible costs based on jury award data reflect the latter’s “extreme difficulty of translating pain and suffering into monetary equivalents” (Sunstein, 2008: 157). Willingness-to-pay, depending on the method of elicitation, can rest on the wealth of the would-be payer and can suffer from “hypothetical bias,” as survey respondents tend to overstate their willingness to pay as long as they do not have actually to do so (Heaton, 2010: 3–4). Both jury awards and survey-elicited willingness-to-pay estimates are also affected by the so-called “hedonic forecasting error”

⁵⁾ The “value of statistical life” refers to the measurement – monetized value – of society’s willingness-to-pay for a marginal reduction in the risk of premature death. For more on this approach to value estimation, see, for example, Viscusi (2008) and Viscusi and Aldy (2003).

⁶⁾ For an approach to estimating health-related losses in cases involving non-fatal crimes, see the discussions of “quality adjusted life years” or “QALYs” in Roman (2011) and Centre for Criminal Justice, University of York (2008).

(e.g., Sunstein, 2008): people greatly exaggerate most of the pain, suffering, and the forgone gains⁷ associated with a loss from the status quo (Sunstein, 2008: 159–160) as they under-assess human beings' resilience and capability to adapt (see Kermer et al., 2006).

Zimring and Hawkins (1995) voiced concerns about initial efforts to evaluate the costs of crime, but this literature has grown and matured substantially (e.g., Brand and Price, 2000; Mayhew, 2003; Cohen et al., 2004; Dubourg and Prichard, 2007; Cohen and Piquero, 2009; Heaton, 2010; Roman, 2011; and others). Although it cannot yet render harms fully, it can provide insight to the elements of harm that are amenable to monetization. And, as evidenced in the recent literature, the list of those elements is expanding as analytical methods improve and data availability increases.

3.2. *Impact of Criminal Victimization*

In addition to criminal victimization surveys, several studies have explored the consequences of a broad range of individual victimizations. In reviewing these studies, Spalek (2006: 68–79) distinguishes the psychological, emotional, behavioral, financial, and physical impact of different types of crime on the victim, but this body of research has been largely descriptive, with most studies focusing on a specific experience of victimization (e.g., Resick, 1990; Stanko and Hobdell, 1993) or specific impacts (e.g., the household's moving decision in Dugan, 1999). Researchers working in the victimological tradition have tended to focus on factors that influence the severity of the experience of victimization, differentiating between the victims' demographic and psychological characteristics (which Walklate, 2006: 75, calls the victims' "personal and structural vulnerability"); factors relating to the victimization event (e.g., type of event and victim-perpetrator relations); and "post-victimization factors," i.e., the time elapsed since the event and systems of support (Spalek, 2006: 80–84). This literature has been criticized for focusing almost exclusively on traditional crimes and its individual victims (e.g., Fattah, 2010: 54–57), thus unwittingly "perpetuat[ing] the false dichotomy between offenders and victims and the popular stereotypes of both" (Fattah, 2010: 57). Correspondingly, most victimological studies have given little attention to corporate crimes and other offences lacking immediate individual victims, and neglected non-individual bearers of harm (Whyte, 2007; Fattah, 2010: 54–57).

⁷ In this context, the word "gains" refers not to financial capability or reward, but to quality or enjoyment of life. Such foregone gains are also known as "hedonic damages".

3.3. *Drug-Related Harms*

The drug-related literature suggests potential means to categorize and frame harm.⁸ Newcombe (1992: 2–5) offers one of the first taxonomies of drug-related harms; others have followed, largely, but not entirely, addressing the harms of use. MacCoun, Reuter, and Shelling (1996) present a three-dimensional taxonomy of drug-related harms. They distinguish among categories of harm (health, social and economic functioning, safety and public order, and criminal justice); bearers of harm (users, dealers, intimates, employers, neighborhood, and society); and primary sources of harm (use, illegal status, and enforcement). They initially considered trafficking as a primary source of harm, but eventually excluded it, arguing that the harms of trafficking are mostly associated with policy, i.e., illegality and enforcement.

MacCoun (1998) offers a conceptual framework that traces the paths through which policy can affect drug-related harms. Despite claims of fundamental incalculability (e.g., Caulkins and Reuter, 1997: 1148; Caulkins et al., 2011), others in the drug policy community (e.g., MacDonald et al., 2005; UNODC, 2005; Nutt et al., 2010) have sought to develop quantitative indexes of total drug-related harms.⁹

3.4. *Harms of Crime*

Very few scholarly advocates of harm-based approaches to crime-control policy have developed rigorous typologies or assessment tools. Rubin (1999) provides no specification; Hillyard and Tombs (2004) make only brief suggestions about the scope of a social harm approach; and Sherman (2007: 312) proposes the creation of a total harm index of past crime based on the public opinion severity score for particular legal categories of crime (e.g., robbery). Dorn and van de Bunt (2010) reach farther and suggest articulating the harms of organized crime along three dimensions: “hurts to victims,” “threats to public and private sector guardians,” and “systemic damage.” They provide examples of hurts to victims, focusing primarily on monetary indicators (Dorn and van de Bunt, 2010: 8–13). Porteous (1998), Levi and Burrows (2008), Kopp and Besson (2009) and others *de facto* equate the harm of crime with its social cost and include the costs of societal reactions.

We know of only two scholarly attempts to categorize the harms of crime in detail, those of Maltz (1990) and von Hirsch and Jareborg (1991).

⁸) For a more comprehensive discussion of the drug-related literature as it relates to harm reduction, see Greenfield and Paoli (2012).

⁹) See Pacula et al. (2009) for a review of studies that estimate drug-abuse costs.

Maltz (1990) focuses on organized crime in the late 1980s in the United States and identifies five dimensions of harm, namely, physical, economic, psychological, community, and societal. He also distinguishes between *mala in se* crimes, those crimes which are deemed inherently wrong or evil (e.g., murder), and *mala prohibita* crimes, those which are deemed wrong because they are prohibited by statute (e.g., gambling, prostitution, drug trafficking). Relying on his own professional judgment, he qualitatively assesses the harms of several offenses, such as arson and extortion, which were then commonly associated with organized crime; his rankings of the harms of those offenses range from “little or no” to “very significant.”

Von Hirsch and Jareborg (1991) offer a more structured attempt to categorize the harms of crime, one which Ashworth (2006: 37) describes as “pathbreaking” and has had considerable impact on the subsequent legal debate (e.g., Walker, 1997; Bagaric, 2000–2001; Duff, 2001; Burton, 2007). In their paper, “Gauging Criminal Harm: A Living Standard Analysis,” they focus on the damages associated with common interpersonal crimes, such as theft, burglary, and assault (Von Hirsch and Jareborg 1991: 3–4).¹⁰ The authors develop guidelines for assessing the *standard* impact that a crime has on the immediate victim’s “standard of living” — defined, following Sen (1987), as the “economic means” and “non-economic capabilities” for achieving a certain quality of life (Sen, 1987: 7 and 10–11). Reflective of such means and capabilities, they posit four “generic-interest dimensions” (Sen, 1987: 19) upon which crime typically intrudes (i.e., physical integrity, material support and amenity, freedom from humiliation, and privacy or autonomy) and identify four living-standard levels, for gauging the severity of intrusions upon each interest (Sen, 1987: 17). A “harm scale” with five broad bands of gravity, ranging from grave to lesser, completes the framework (Sen, 1987: 28–29). In rating the harms of crime, von Hirsch and Jareborg would assess the impact of different crimes on a hypothetical victim, assumed to have interests at each living-standard level (Sen, 1987: 21).

Other legal theorists have raised a series of criticisms about von Hirsch and Jareborg’s approach. Bagaric (2000–2001), for example, criticizes it because it does not refer to an underlying moral theory, and identifies such theory in utilitarianism. Ryberg (2004: 62–68) notes that it lacks a clear concept of probability (Ryberg, 2004: 66). Another obvious limitation of von Hirsch and Jareborg’s approach is that it concerns only “ordinary victimizing offences.”

Loosely building on von Hirsch and Jareborg’s approach, a few other scholars in the 1990s compared the seriousness of assaults and the criminal justice outcomes, finding no linear relationship between the two. In the first paper, seriousness was

¹⁰ Von Hirsch et al. (2005) restate the approach with modest revisions.

judged by lawyers on the basis of nine rather heterogeneous factors (Clarkson et al., 1994); in the second, it was judged according to medical injury severity scoring methods (Shepherd, 1997). We have identified no other empirical applications of von Hirsch and Jareborg's approach.

In recent years, several government agencies have endeavored to report on the harms of organized crime and to develop methodologies to assess the harms of organized and other crime, more generally (see Tusikov, 2012). Reflecting the goals of the Organized Crime Control Strategy, for example, in the UK the SOCA has published a harm framework for serious organized crime that addresses both the types and the bearers of harms (SOCA, 2010: 25). At the time of writing, neither SOCA — nor its successor — had published instructions for implementing the framework or a full-blown application.

4. The Challenges of Assessing the Harms of Criminal Activities

In reviewing the literature, we have identified five major sets of challenges to assessing the harms of criminal activities. Throughout, one message is clear: harm cannot be addressed through scientific means alone. As we discuss below, the assessment of harm cannot be divorced fully from social norms, environmental circumstances, and subjectivity, manifested, for example, in value judgments.

4.1. *Morality, Cultural and Socio-Economic Variability, and Subjectivity*

The decision to label something as a “harm” is normative. If harms are understood in terms of violations of legitimate interests, we must be aware of the moral, cultural, and socio-economic nature of the interests recognized in a particular system. As McCormick maintains (1982: 30), “criminal law in so far as it is concerned with fending off harmful behaviour is *necessarily* geared to protection of what are legitimate interests *according to a certain dominant political morality*.” In turn, this “political morality” depends on a society's cultural and socio-economic arrangements so-much-so that different contexts might present different crimes or attribute different harms to the same crime. For example, as von Hirsch et al. (2005: 190) suggest, if we slept in tents and relied on communal assets for much of our day-to-day existence, the impact of a burglary on our “homes” would be much less.

Questions of legitimacy (e.g., Duff, 2013) pertain not just to interests, *per se*, but to claimants and their sometimes-competing perspectives on the consequences of criminal activities. Here we highlight two related questions.

First, should all claimants be treated as legitimate or equally legitimate; that is, should harms to all individuals, entities, etc. count with the same weight or importance, regardless of their status? For example, should harms to criminals, particularly those sustained in the commission of the criminal act, be included? A

body-packing drug courier might overdose; a wholesaler might beat a retailer. One might argue against inclusion, e.g., on the basis of free will in the decision to traffic or deal, but the lines between perpetrator and victim are not always clear. Moreover, many crime and drug control policies are intended to minimize harms to the physical integrity of all parties to a criminal activity, regardless of their role (e.g., European Council, 2005: 2). If choosing to exclude harms to criminals, one might still include related costs borne by taxpayers and others in the larger community, such as those of treating overdoses and injuries.

Second, how should we address outcomes that might look like harms from one claimant's perspective and benefits from another? Even within the same value system, the consideration of the specific consequences of a criminal conduct can differ according to perspective. A crime might, for example, generate revenues that benefit not just perpetrators but also the larger economy. It might fuel consumption, to the satisfaction of many legitimate retailers and service-providers, and, in some rarer instances, promote investment. In a few extreme cases, such as opium production in Afghanistan or heroin trafficking in Tajikistan (e.g., Paoli et al., 2009), the revenues might provide an important additional income or means of survival for a considerable fraction of the population. Nevertheless, policy-makers and law-enforcement agencies typically consider illegal revenues a serious adverse consequence of criminal activities.

Some of these issues might be new to the field of criminology, but they are well-known in other fields, not only law but also the drug-related harm reduction literature (e.g., Newcombe, 1992; Caulkins and Reuter, 1997; Riley et al., 1999).

4.2. *Problems of Infinitude, Standardization and Causality*

A list of harms, however broad and inclusive, cannot be exhaustive. First, it is impossible to identify and assess all harms *a priori* and, second, a list that includes ancillary effects could, in practice, go on forever. This leaves us with a question of scope: how inclusive should we be in establishing a list of harms? With a hint of wry humour, Levi and Burrows (2008: 294) ask whether the production of their own paper on fraud “and the whole of the criminological estate” should be defined as a cost of crime.

Moreover, as stressed by victimologists (e.g., Spalek, 2006), the hurtfulness of a crime depends on the specific situation of the victim and the situation of one victim might differ greatly from that of another. A person who is physically, psychologically, or socially vulnerable might suffer more harm — or harm of longer duration — from the same crime than someone who is not. However, no broad-based empirical study can assess the harms to each victim fully and separately: such an assessment would require tracing, interviewing, or monitoring all bearers over a number of years. Some form of standardization, at least for individuals, thus, seems unavoidable.

In legal theory, the issue of causality is known as the problem of “remote harms” (e.g., Ryberg, 2004: 64–65). Remote harms are not just temporally or spatially distant but also stand in such a relation to a conduct that it is not clear whether they should be ascribed to that conduct. For example, drug trafficking triggers events that are harmful, in part, because of the intervening choices of other actors (e.g., dealers and users). There is no doubt that drug use can hurt users, e.g., through deteriorating health, and the rest of society. However, drug use and its harms result from a series of choices over which wholesale traffickers have no control — legal scholars have expressed concerns about such extensive interpretations of harms (e.g., Harcourt, 1999; Wallerstein 2007) and suggested criteria to limit them (e.g., Simester and von Hirsch's fair imputation, 2011).

The potential for “accumulative harm” adds another complication. Some harm follows from an act only when the act is combined with the similar actions of others (Ryberg, 2004: 66). It is hard to claim, for instance, that any single case of VAT fraud represents a significant harm to state coffers or, more precisely, triggers a significant loss of social services, but the combined impact of widespread fraud could be substantial. In the cost-of crime literature, accumulative harms, once monetized, are sometimes called “indirect costs” and cannot be attributed to any particular offender (see Cohen, 2005: 26).

4.3. *Gross v. Net Harms*

Some criminal activities might yield direct or indirect benefits that “countervail” harms, but should they be tallied in the assessment? The ripple effects of Afghan and Tajik drug-related revenues provide a good example at the front end of the supply chain; further along the supply chain, drug users might also incur benefits (e.g., relaxation). In assessing the costs of drug use, some scholars subtract the benefits. See the discussions of Collins and Lapsley (2002) and Rehm et al. (2006) in Pacula et al. (2009: 81). Following this reasoning, we might ask if, accepting a causal link between drug trafficking and use, we should subtract the benefits of drug use from the total harms of drug trafficking? This question could be framed as one of “gross” versus “net” harms.

4.4. *Quantification*

As many scholars have noted (e.g., MacCoun et al., 1996; Caulkins and Reuter, 1997: 1147; Brand and Price, 2000: x; Kopp and Besson, 2009), data on the harms of crime and related concepts are often scarce and problems of measurement all-too-apparent. We might be able to conceptualize a basis for quantification, such as the value of life or the willingness to pay for avoidance, but still lack the data or other technical means to quantify a harm accurately, if at all. Consider the relatively simple case of the harm to a business's reputation resulting from its employees'

involvement in a drug trafficking operation. One might try to assess the reputational effect of a trafficking incident on the value of the business, but how much of a change in value, be it measured in profits, returns, stock prices, or some other unit, should one attribute to the illicit involvement? In theory, a variety of statistical methods might be brought to bear, but, in practice, are they feasible?

Concerns about data and measurement are not wholly technical: they are also, as the prior discussion of gross and net harms implies, normative. Ultimately, one might make the case that any insistence on quantification is, itself, normative. At least implicitly, it suggests that only those harms that are quantifiable “count.”

4.5. *Incommensurability*

Many different types of harms are incommensurable; that is, they cannot be measured or compared by a common standard, whether quantitative or otherwise (see Caulkins and Reuter, 1997: 1148; Caulkins et al., 2011). It is not possible to report a single, fully comprehensive measure of crime-related harms that includes the loss or degradation of life, government integrity, or environmental quality. A single measure might capture some facets of each, but certainly not all. Caulkins and Reuter (1997: p. 1148) ask “With what common unit can one denominate both battered children and burglaries?” Comparisons of harms across different classes of bearers, e.g., the individuals, businesses, and governments that accrue harms, pose special challenges inasmuch as it might be possible to develop an internally consistent measure of harm within each class — such as von Hirsch and Jareborg’s “standard of living” for individual victims of crime — that circumvents many of the challenges noted already, but that measure might hold little meaning across classes.

Any effort to reduce harms to a single measure (e.g., MacDonald et al., 2005; UNODC, 2005; various other policy agencies in Tusikov, 2012), must, by necessity, limit itself to those harms that are amenable to that measure, be it a monetary value, standard of living, or something else entirely. Commensurability comes at a price, specifically a loss of information and, as already addressed vis-à-vis “quantification,” the possibility of bias. In excluding certain harms, the policy community risks inadvertently judging the harms’ importance — or unimportance.

5. **Conclusions and the Role of Harm Assessment in Policy Making**

The daunting challenges of harm assessment are no doubt a key reason why criminologists and other social scientists have not yet developed the means to systematically identify, evaluate, or compare the disparate consequences of criminal activities. In another paper (Greenfield and Paoli, 2013), we present a framework to assess the harms of crime that addresses at least some of these challenges. The

framework enables us to identify, evaluate, and, within limits, compare the harms associated with wide-ranging criminal activities. As discussed extensively in that paper, we believe that the systematic and empirically-based assessment of the harms of crime can serve a number of roles in policy analysis and development. It can provide evidence with which to establish strategic, long-term priorities and set operational or tactical, short-to-medium term priorities; it can be used to assess the impacts of different policy measures and, more generally, to assess whether specific activities do or do not warrant criminal status, given their related harms; it can also be used to provide an empirical benchmark for gauging the seriousness of offences and, on that basis, for reviewing existing sentences and sentencing.

Ultimately, policy-making and law-enforcement agencies might find they are better able to enhance their accountability and legitimacy if they set their strategic and tactical crime-control priorities on the basis of an explicit criterion reflective of key criminal principles, such as harm, and a systematic empirically-based assessment. The priorities set by the Stockholm programme, for example, may well correspond to shared public perceptions but if they are not based on a sound analysis and do not correspond to empirical evidence, they may be as wrong as the general public's perceptions of crime seriousness (e.g., Cohen, 1988).

Lastly, even if policy-makers and law-enforcement officials do not adopt harm as a guiding principle, independent scholarly assessments could enhance the knowledge of a neglected but crucial aspect of what we now call crime and serve criminologists' public role well. In times of real or presumed penal populism, a systematic empirically-based harm assessment could help to educate the public, if it concludes — as we did in our application to cocaine trafficking in Belgium (Paoli et al., 2013) — that a specific criminal activity involves less harm than routinely assumed.

As Ashworth notes (2006: 39), “the task of assessing the seriousness of the offence is ... as complex and problematic as it is unavoidable and fundamental.” If “harm” is to play a larger part in the policy-making process, criminologists and other social scientists should flesh out and apply methods to support that process, addressing head-on the related conceptual and technical challenges of harm assessment.

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