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THE GEOGRAPHY OF CRIME IN POLAND AND ITS INTERRELATIONSHIP WITH OTHER FIELDS OF STUDY

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Abstract

The paper discusses a range of areas, including a critical assessment of the state and accomplishments of Polish geography of crime; the theoretical and methodological achievements of various academic fields and disciplines that contribute to research into crime; and the underutilisation by Polish geographers of worldwide scientific achievements in this area. The paper outlines the interpretative possibilities extensively developed within other academic disciplines and pertaining to the study of crime that are now open to geographers.

Key words

state of Polish geography of crime • achievements of Polish geography of crime • geography of crime – interrelations with other disciplines

Introduction

The geography of crime is a sub-discipline of human geography and refers to studies which analyse the understanding of the interplay between crime, space and society through analyses of offences, offenders and the effects of crime (Fyfe 2000). Therefore, scientists should explain in their research, on one hand, the widely-known phenomenon of the concentration of criminal activity present in certain places, and, on the other, the changes that occur in social and political areas, as well as the level of fear of crime.

Moreover, as a part of applied geography this sub-discipline of social geography should raise questions such as:

- How can one organise and monitor a particular area in order to decrease the number of crimes committed within it?
- How can one identify places that are dangerous, both potentially and actually?
- Where do the perpetrators of registered offences live?

Outlined in that manner, the research issues of the geography of crime force on us, as it were, the necessity to refer to works in multiple other academic disciplines

researching crime. Both methodological and theoretical works allow the analysis, explanation and structuring of the phenomenon of crime, taking into consideration the spatial dimension of the research. Furthermore, the duality of the subject of research encourages us, in reference to the geography of crime, to consider the possibilities of using both the naturalistic and the humanistic model in study.

The purpose of the article is to critically assess the state of Polish geography of crime after almost thirty years of development. It will involve a quantitative and factual appraisal of all Polish publications within that sub-discipline. The factual assessment includes the research issues considered and the use of works from other academic fields in these publications. The research issues and trends discussed in the literature on the subject on a world scale, and the relationships with other fields of study demonstrated within it, constitute the reference point for this assessment. This approach allows one to determine the directions in which this sub-discipline will evolve in Poland in terms of starting new research issues and trends, but also the possibility of taking inspiration from various fields of science.

The author of the article realises that the issues of spatial aspects of crime in Poland are examined by the representatives of assorted academic disciplines including urban sociology, spatial econometrics, environmental and socio-spatial criminology, environmental psychology, urban studies, architecture and planning, and others (however, Polish works on these subjects are sparse – represented by few researchers). This article only took into account the works of the authors representing Polish geographical centres (listed below in Table 1).

In the remaining sections of the article, the issues will be discussed in the following order: the state and achievements of Polish literature on the geography of crime, the relationships between world literature on that subject and other academic disciplines, a critical assessment of the state of the current relationships

between Polish geography of crime and other disciplines.

The geography of crime in Poland

Polish work in the field of the geography of crime should be juxtaposed with the global achievements of this sub-discipline of geography. Scientific research and analyses of crime have been conducted worldwide for years and resulted in the creation of many academic disciplines, trends and perspectives which, in turn, constituted the basis for many concepts and theories. Generally, several stages of development of the spatial analyses of crime can be specified: the cartographic school (19th century; main representatives: A.-M. Guerry, A. Quetelet, R. Rawson, C. Burt), the Chicago school (1920-1940; C. Shaw and H. McKay), the stage of fascination with quantitative research – factor analysis (1950-1970; J. Baldwin, T. Morris, B. Lander), the stage of parallel development of environmental criminology beginning in the 1970s (P.J. Brantingham, P.L. Brantingham, A. Verma, S. Lodha, R. Wortley, L. Maze-rolle) as well as the interest of geographers in criminology (K. Harries, G. Pyle, N. Davidson, D. Herbert, D. Evans) and the modern integrating approach connected with the use of GIS tools – crime mapping (S. Chaaney, J. Ratcliffe, R. Boba Santos, R. Paynich, B. Hill, J. Eck, M. Andersen). Although the spatial dimension of crime analyses only appeared permanently in the works of the representatives of many disciplines in the second half of the 20th century, the earlier, yet still inspiring, works of the cartographic and ecological schools cannot be forgotten. They may be less crucial in terms of theory, but the vast almost hundred-year-old array of methods and techniques can constitute a starting point for monographs (a more detailed description of the stages of development of the spatial analyses of crime can be found in a book by Mordwa 2013b).

In Poland, the early works examining research on the spatial aspects of crime were published by sociologists (W. Piotrowski,

Z. Pióro, K. Frieske, K. Czekaj, P. Jabkowski) and criminologists (A. Kossowska, B. Hołyst, A. Siemaszko). With time, they were joined by the representatives of jurisprudence (M. Goldshneider, K. Krajewski, J. Czapska), economic sciences (J.J. Sztudynger, M. Sztudynger, K. Kądziołka), psychology (A. Hauziński) or architecture (B. Czarnecki), whose studies will not be discussed in this work.

A quantitative appraisal of Polish geography of crime

While making an appraisal of the main research issues of Polish human geography, Czyż (2004) concluded that the theses that could be ascribed to the field of the geography of crime in our country represent a particularly low level of sophistication. Up until recently, the low interest in these issues has been reflected by a few, mostly secondary and subsidiary works. This theory is confirmed by the fact that only five authors have published three or more publications each. For the remaining authors, the publishing within the field of geography of crime was incidental; it constituted a marginal element among their main research interests, and was not developed in-depth later. It was only at the end of the first decade of the 21st century that a higher level of activity could be observed amongst the geographers

resulting in more numerous publications. Altogether, for the purposes of this work, 63 publications have been taken into account (Tab. 1). They constitute the entirety of the works published in the centres studying geography in Poland. Because the publications analysed were produced between 1986 and 2014 it was impossible to conduct a parametric evaluation of them. In terms of quantity, the works comprise: three monographs, 31 chapters in various monographs (with only two published outside of Poland; however, those include the chapter by Bartnicki (1989) in a widely-quoted book edited by Evans & Herbert), 25 articles in Polish journals (9 of them in national Polish journals, and the remaining ones in local journals), two conference messages, and two maps with comments in atlases. This numerical appraisal of Polish geography alone, encompassing a period of almost thirty years, proves its poor state and its limited role and influence as compared with other geographical sub-disciplines – even within the field of social geography (Wójcik & Suliborski 2015) alone. The fact that 27 of these publications were published in 2010 and later can be considered a positive conclusion drawn from the table. It shows that, in recent years, researchers’ interest in the geographical aspects of crime has grown; hopefully, it will continue to do so in the future.

Table 1. Polish works in the field of the geography of crime

Centre*	Author (year of publication)	Major issues discussed in publications
1	2	3
Warsaw	Bartnicki (1986, 1987, 1988, 1989, 1991)	Theoretical and methodological issues in the research of crime; works in the field of geography of crime; geography of city crime; spatial variability of crime; perception of crime threats; sense of safety
	Bartnicka et al. (1995)	Spatial variability of crime in Poland
Kraków	Mydel (1989)	Statistical characteristics of crime in Japan
	Mydel & Kozimor (1989)	Spatial variability of city crime; the characteristics of perpetrators of offences; the factors of crime; the dynamics of crime
	Guzik (2000a,b)	The reflection of crime registered by media (the press); inhabitants’ notions of crime; works in the field of the geography of crime
	Foland & Górecki (2007) Gronowski (2007)	Perception of crime; psycho-cartography of crime The relationship between crime and unemployment in the Małopolska Voivodeship

Centre*	Author (year of publication)	Major issues discussed in publications
1	2	3
Toruń	Maik (1995)	The spatial variability of city crime; the perception of crime; methodological issues in the research of crime; the factors of crime
	Jaroszewska-Brudnicka (2001)	Spatial variability of crime and criminals in the city; the factors of crime
	Szymańska & Pappelbon (2001)	Spatial variability of city crime
Łódź	Wolaniuk (1997)	Concentration of crime in the city during the period of system change
	Mordwa (2003, 2006, 2007, 2009, 2010, 2011a,b,c, 2012a,b,c,d, 2013a,b,c,d, 2014a,b)	Spatial variability of crime; the characteristics of large-city crime; spatial distribution of the police; the forming of safe spaces; the perception of crime; sense of safety, dark figure of crime; theoretical and methodological issues in the research of crime; the factors of crime; crime mapping
	Marcińczak & Siejkowska (2003, 2004, 2009)	Spatial variability of crime; the dynamics of criminal behaviour; the perception of dangerous areas; the image of crime in the media; the geography of fear
	Szybel (2011)	The perception of dangerous areas; the geography of fear
Poznań	Kaczmarek (1998)	Crime in rural areas; spatial variability of crime; the factors of crime
	Kulczyńska (1998)	The spatial variability of crime in Poland
	Kotus (2005)	The concentration of crime in the city; the sense of safety; the points of origin of crime; the evolution/dynamics of crime threats; the role of the media in the shaping of crime
	Dolata & Kotus (2004, 2006)	Registered crime – the perception of crime; the sense of safety, stigmas and the stereotyping of certain city areas
	Bajerski (2006)	The spatial determinants of the variability of crime; works in the field of the geography of crime
	Wetrowska-Jęch (2007; 2008)	Globalisation and city crime; large-city crime in Poland
	Bogacka (2009a,b, 2010a,b, 2011, 2012a,b,c)	The spatial variability of crime; the factors of crime; the perception of dangerous areas; the image of crime in the press; large-city crime; inhabitants' notions of crime; theoretical and methodological issues in the research on crime; works in the field of the geography of crime
Gdańsk	Wendt (2001)	The concentration of crime in the city; the social and spatial determinants of crime
	T. Michalski (2012)	The threat of crime; public safety
Wrocław	Głaz & Ilnicki (2004)	The spatial variability of city crime
Bydgoszcz	Mikolcz & Rykiel (2004)	The criminal behaviour of participants in sporting events
Szczecin	Sypion-Dutkowska (2010a,b, 2012, 2014)	Crime mapping; the spatial determinants of crime; works in the field of the geography of crime
Lublin	Piskorski et al. (2013)	Public safety

* the centres of geographical studies in Poland.

Source: personal investigations.

Research issues and trends in the works of Polish geographers

The first geographer to research crime on a larger scale was S. Bartnicki. His publications can be considered to be the foundations of the sub-discipline being investigated. Even almost 30 years ago, he was already interested in theoretical and methodological issues, the spatial variability of crime itself as well as the perception and effects of this social pathology. Unfortunately, after publishing several works, his interest abated. The huge majority of works concerning crime that appeared afterwards constituted a by-product of additional, secondary interests of their authors. Perhaps only in the Toruń and Łódź centres could a certain continuity be observed in the research conducted by consecutive scientists. For the last couple of years, a revival and raised interest in the subject of the spatial aspects of crime research has been observed and as a result three books on the issue were published (Bogacka 2012c; Mordwa 2013b; Sypion-Dutkowska 2014). The late attempts at approaching the said research subject in Poland were the result of the processes of development of geographers' interests being delayed in relation to those in western countries, as well as the broadening of the horizons of geographical research with new academic fields and research issues. Only after implementing the stages in researching the environmental determinants of the way the city functions and the spatial, demographic and economic structures in Polish geography, has the wider use of behavioural and perceptual approaches followed. The focus of research of some authors shifted towards analyses of the city's inhabitants – the attempts at identifying issues that are crucial to them, their level and the quality of life. During the development of such aspects of research the issues connected with crime and the safety of individuals were taken into account. On a political level, the fall of totalitarianism influenced the development of the geographical study of crime – previously the uncovering

of social issues and problems in socialist societies was undesirable (Michalski 1995; Liszewski 1995; Węclawowicz 1999). However, what constitutes a distinguishing feature is that, despite a certain level of promotional activity, Polish work on the analysis of crime still assumes a factual approach which rarely uses advanced methods of mathematical and statistical or, above all, social research (also: Bogacka 2011).

The statement declaring that up until now only three books on the geography of crime were published was not made accidentally. It stems from the fact that only three people in Poland (S. Mordwa, E. Bogacka, N. Sypion-Dutkowska) have relatively considerable accomplishments in this field, with their works being the crowning achievements of their prior research and personal studies. It could be argued that, in their case, the scientific interest in crime draws upon the achievements of other disciplines as well.

Table 1 also presents the major research issues discussed by authors in their publications. On this basis, several of the main research trends characteristic of the Polish geography of crime can be determined: (1) the distribution of crimes, the identification of their focal points, the social and spatial determinants of crime; the demographic, social and spatial characterization of criminals; (2) studying the role of the media in describing the phenomenon of crime; (3) the perception of dangerous places; (4) the sense of safety and fear of crime; (5) research on victimisation.

Aside from the trends listed above, the geography of crime on a world scale also deals with other research areas, so far unrepresented in Poland. Some of the geographical works pay a great deal of attention to the criminal habits of those committing punishable offences and how the opportunity for crime occurs during their daily routines. Geography shares this research area with the criminology of place. In Poland, there is a visible lack of research and practical applications resulting from the connections with the built environment, i.e. on whether spaces

deter crime through effective defensibility and surveillance. Other works in the geography of crime focus on how crime is commonly constructed, socially and politically. This area encompasses work related to the subject of exclusion as a result of the fear of crime. Attention is paid to the social and spatial exclusion of certain social groups due to: the violence and harassment and the fear they cause, being overly cautious, the functioning of the justice system and local safety policy. Geographers from Western countries criticise the system in which the fear of crime is a political construct used as a means to legitimately pass policies for reducing crime (Fyfe 2000; Pain 2001; Herbert 2009; Bogacka 2011). The differences between the geography of crime in Poland and elsewhere in the world which is visible in the research trends presented and the issues discussed, are mostly the result of the tradition, differences in development, as well as the theoretical, methodological and philosophical inspirations of Polish geography as a whole, and social geography in particular (Wójcik & Suliborski 2015).

Remarks

While assessing the achievements and state of development of Polish geography of crime as well as the causes of this situation, the following remarks can be made:

1) The majority of the work undertaken by Polish geographers of crime, despite being methodologically diverse and varying in terms of research topics, is, above all, empirical in nature. Moreover, the geography of crime in Poland does not encompass all the areas present in this sub-discipline in the world literature.

2) The main difference between the geography of crime in Poland and the geography that exists in English-speaking circles is the lack of radical trends in the Polish geographers' approaches resulting from Marxist, feminist or postmodernist traditions. However, the neopositivist influences using quantitative methods are strong. Geographers

researching crimes in Poland tend to avoid political and ideological entanglements.

3) Cultural determinants are a crucial obstruction in the way of the development of Polish social geography. In Western countries, the intensive development of the geography of crime is the result of a long tradition of subjective approaches in society determined by the democratic system and the development of civil society. The post-socialist countries, including Poland, are hindered by a post-communist mentality and the attachment of researchers themselves to scientism, and researchers who, like the subjects of a totalitarian system, shun evaluative or critical judgements. Moreover, researchers in these countries are often hindered by institutions (police, prosecution, courts), which function differently to those in democratic systems. These institutions are not only closed to the possibility of working with the academic environment, they are also uninterested in the works thereof. This aversion to scientists is visible as early as in the stage of data gathering. In order to collect data from them, a common ground of cooperation and trust needs to be created.

The relationship between the global geography of crime and other fields of science

The geography of crime in the world, when focusing on the spatial determinants of crime, uses the multi- and interdisciplinary approaches. As a result, it also includes independent theories and methods created by the representatives of different disciplines in its analyses. This approach towards research is harder, as it requires knowledge of what was written on the subject of crime by, e.g. sociologists, psychologists, criminologists and others. However, it seems necessary to learn the original achievements of various disciplines and utilise them in geographical studies.

Among the fields of science which are connected to the geography of crime worldwide, and which, potentially, should inspire Polish

geographers, those which are traditionally connected with spatial research (belonging to the categories of Earth science and technical sciences) and other disciplines could be discerned (belonging to the following categories: humanities, social, economic and biological sciences as well as jurisprudence).

Earth science and technical sciences

Academic disciplines with a predominantly spatial component belong to the category of Earth sciences (geography, especially with its sub-disciplines of urban geography and social geography) and the field of the technical sciences (cartography, architecture, urbanism). At the border between them, various sub-disciplines have emerged, for example – GISc, spatial economy, built environment or even *urban studies* as a hybrid discipline, which comprise not only the above mentioned disciplines and scientific approaches. Possibly the wide range of issues undertaken by the disciplines noted is the reason for the issue of crime constituting only a small element within them (Syption-Dutkowska 2014). These types of issues appear only in the wider context of research and analyses of varying spatial pathologies (e.g. devastated or substandard housing) as well as social issues (segregation, poverty, unemployment, alcoholism, domestic violence etc.). Until the 1970s, in practice the geographical approach of the law enforcement agencies was worldwide – and in Poland still is – limited to mapping crime scenes and, optionally, other locations associated with them. The situation has changed only with computers becoming widespread and with the creation of police-designated applications enabling not only for collection and mapping, but also analysis, modelling and predictions. As a result, between geography, GISc, criminology and sociology, a new sub-discipline – crime mapping – has emerged

Projects such as CPTED (*crime prevention through environmental design*), *defensible space*, or *secure by design* should also be mentioned here. They are largely

interconnected with disciplines characterised by a spatial approach to the problem of crime. On the basis of the achievements of theoreticians (mostly from architectural, urban planning and urban studies circles) such as O. Newman, J. Jacobs, R. Jeffery, R. Clarke, S. Sorensen, P. van Soomeren, or R. Carter, a concept has been created – followed by practical solutions which allowed us to limit crime in selected areas through varying project solutions. This already broad field of knowledge provides directives as to the method of designing and securing not only buildings, but also their locations in relation to each other, pedestrian traffic ways, road traffic, the development of entertainment areas, greenery, services, the introduction of appropriate lighting or informal social control (in-depth information: Czapska 2012).

The remaining academic fields involved in the study of crime

Among the remaining disciplines with important achievements within the field of crime research, the following should be noted: philosophy (in humanities); sociology, psychology and pedagogy (social sciences); criminology, victimology (jurisprudence); economy (economic sciences) and biology (biological sciences). Furthermore, it needs to be mentioned that some of these disciplines have developed spatial approaches also useful in crime research: e.g. environmental criminology, environmental psychology, social ecology or urban sociology.

Humanities and social sciences

Philosophy is the oldest of all academic disciplines and its inspirations have laid the foundation for the approach of all other disciplines, sub-disciplines, approaches, hypotheses, theories, etc. The influences of philosophy are visible whenever varying outlooks, perspectives, approaches and points of view are in question. From the perspective of crime research, it is philosophy that gives various answers and basic definitions – ethics, norms, morality, immorality, responsibility, law,

punishment, lawfulness, free will, etc. Philosophy also deals with the matter of morality of a given criminal and questions the extent to which justice administrations can interfere with our lives and established laws.

Theories focusing on the offender are developed within the field of psychology and sociology. Psychological perspectives investigate the explanation for the phenomenon of some individuals demonstrating criminal behaviour and others not. This is examined in the context of personality, temperament, mental and emotional development, gender. Motives and reasons, which play a crucial role in testing the justification for committing a crime, are also researched (e.g. theories of needs by A. Maslow or C. Alderfer¹). Obviously, there is no single universal theory which would explain criminal behaviour. Among the many to be included in the wide range of general theories developed by psychologists S. Freud's psychoanalysis, E. Erikson's theory of psychosocial development, and A. Bandura's social learning theory must be mentioned. Amid the theories explaining solely criminal behaviours, H. Eysenck's personality theory, S. Yochelson's and S. Samenow's theory of the criminal personality and H. Cleckley's and R. Hare's theories on psychopathic personalities are worth introduction. However, the psychological perspective, as opposed to the sociological one, does not provide crucial spatial references.

It is generally assumed that there are three different perspectives from which sociologists attempt to answer questions relating to the existence of crime in society. These are the perspectives of social structure, social processes and social conflict. The sociologists that assume the attempt at a social structure perspective attempt to understand why stability and social order cease to work at some point. They believe that the disruptive reasons and factors stem from the social structures themselves. The examples of such

theories are the social disorganization theory (the so-called Chicago school of social ecology; C. Shaw and H. McKay), anomie (E. Merton, E. Durkheim) and sub-cultures (A. Cohen, W. Miller – subcultural theory). The perspective of the social process focuses on factors such as interaction, communication, meanings and definitions encountered by people in varying social situations. The researchers assume this perspective to understand how standards of behaviour are passed on, how social communication functions, how these processes are influenced by school, workplace, family life and peer relations. This perspective promotes three groups of theories: the social learning theory (E. Sutherland), the social control theory (T. Hirschi) and the labelling theory (F. Tannenbaum, E. Lemert). Sociologists that represent the perspective of social conflict examine issues such as public discontent, opposition, conflict or force. Their concepts stem from two premises assuming that each society is exposed to the emergence of social conflict and, subsequently, the justified use of social force on some of its members. It is believed that social conflicts stem from an unjust political system (interest group conflict) or economic diversity (class conflict). Therefore, this perspective discerns two categories of theories – group conflicts (G. Vold) and Marxist conflicts (the social reality of crime by R. Quinney).

The theoretical achievements of sociologists can be approached from the spatial angle. The first group of theories focuses on explaining 'where individuals commit crimes'. It turns out that criminals do not choose their targets at random, but consciously select a location for their criminal actions. The second group also focuses on the offender, but instead examines the features of his or her living environment. In the light of these theories the behaviour of individuals is determined by the social determinants of given areas and the subcultures that function there. Sociologists also performed situational analyses to discover where crimes happen most often (without knowledge of the context of the offender's choice

¹ Due to the length of the text being limited, the author refrains from describing the theories cited, reasoning that those interested in the subject will doubtlessly find their description in the source literature.

of location). The results showed that the locations of individual actions have unique characteristics. These places are marked by crime in a special way – it is their features that create favourable conditions for such actions.

Pedagogy is mainly involved in the environment of the criminal's upbringing, dealing, amongst other things, with the issues of the environmental determinants of the process of upbringing and tuition as well as their education and human development at different stages of life. It has a major role to play in the shaping and interpreting of environments with high crime risk. Moreover, it cannot be forgotten that the rehabilitative part of pedagogy has introduced theoretical and practical methods for the upbringing of individuals in various types of society. Rehabilitation researches and collects knowledge of pathological types of human behaviour and methods for addressing them (Pilch & Lepalczyk 1995).

Jurisprudence

Crime is a phenomenon, a social pathology and the solution to this issue should be sought primarily through influencing society. Therefore, it is world sociology combined with criminology (interested in researching behaviour punishable by criminal law) that has produced the greatest achievements and has the largest experience in researching crime. Criminologists determine the level of crime, the tendencies within each category of crime and the strategies for fighting crime in given societies. Nowadays, it is criminology that merges to the fullest the interdisciplinary outcomes of the research on crime as a social phenomenon, crime as a deviant behaviour, offenders, victims, the institutions of social control and control mechanisms (Błachut et al. 2007). It is also within the field of criminology that the first attempts at assimilating the research results of numerous disciplines occurred (Elliott, Ageton, Canter). The integrating approach could constitute a method of creating a theoretical generalisation of the understanding of the causes of criminal behaviour.

Environmental criminology emerged as part of criminology with its main focus on criminal actions and their circumstances. The environmental perspective in criminology is based on three premises: (1) All criminal behaviour stems from interactions between individuals and their immediate environment. The environment is not only a passive background for the behaviour that occurs within, but also initiates the development and influences the course of events. Therefore, environmental criminology describes the influence of the environment on patterns of criminal behaviour and attempts to explain the criminogenic nature of certain areas. (2) The distribution of crime in time and space is not accidental. Since criminal behaviour also depends on situational factors, the distribution of crime has to be connected with the spatial layout of criminogenic areas and environments. The purpose of criminology is to identify these areas and define their criminal patterns. (3) The understanding of the meaning of the criminogenic nature of some environments may provide an advantage in the process of controlling and limiting crime (Wortley & Mazerolle 2008). According to P.J. and P.L. Brantingham (1991), crimes need to be perceived as events occurring as a result of the contact between an offender, a victim (or an object) and criminal law in a specific place and time – the crime pattern. The defined criminal patterns enable one to predict criminal behaviour in selected areas, which, in turn, may be used to prevent crime through the use of spatial solutions. This sub-discipline creates practical solutions which help restrict crime through cooperation with the police and local administrations.

Victimology has only been developing dynamically for the last 50 years, focusing on the victim of crime (an individual, an entire institution or a society). Victimologists concentrate their attentions on the role of the victim during the process of crime. Since victims are not chosen at random by the oppressors, some appear to simply attract their tormentors. Individuals with a higher risk of victimisation are, e.g. the inhabitants of large

metropolises, men and the young. The distribution of these groups of people is analysed from the spatial standpoint. Certain regularities in terms of the distances between the locations of the criminals and those of their victims have also been observed – criminal activity decreasing the farther you get away from an offender's house (*distance-decay concept*; Harries 1999: 27).

Economic sciences

Economists attempt to introduce laws that are applied in macro- and microeconomics and various econometric models which explain certain relationships in crime research. Generally, macroeconomics deals with the impact of processes such as unemployment, economic growth or inflation, and microeconomics focuses on individual agents. Economists claim that human behaviour is caused by the desire to gain the highest benefits while considering the necessary expenses. On the basis of this assumption, theories using the rational choice theory (C. Beccaria) or the routine activity theory (with two key concepts: the opportunity for crime and routine activities) have been developed. The supporters of the economic rational choice perspective assume that criminals work similarly to businessmen – they think rationally and make rational decisions. Taking into account the threat and the risk of committing a crime, they can estimate the size of potential benefits. The conclusions of these theories have become highly beneficial and were used to form various modern models of geographic profiling (searching for the offender on the basis of the remaining 'spatial clues'). Instead, M. Felson and J. Eck attempted to explain why crimes happen in specific locations at a specific time. According to them, a crime is a result of three factors: an offender with an incentive, a suitable target or victim (opportunity for crime) and an unattended location. The supporters of this theory observed that certain features of the location itself can, so to speak, attract criminals and criminal behaviour. Another one of the noteworthy theories based on basic economic notions (demand,

supply, profit, cost) is the economic theory of crime (G. Becker and I. Ehrlich) in which human behaviour is not always the result of a conscious calculation. In this theory, illegal actions are treated as alternative modes of behaviour, since every person, in certain conditions, can be capable of committing a crime.

Biological sciences

Initially, biology focused on explaining criminal behaviour via outward appearance, body type, the shape of the skull (e.g. the infamous concept of the born criminal by C. Lombroso). These ideas were abandoned, and modern biology (together with medical sciences) has since developed well-founded theories on the influence of genes, the prenatal environment, hormone levels, medical history and various body disorders (e.g. hypoglycaemia, epilepsy, abnormal resting heart rate) on the criminal behaviour of certain individuals. The influence of psychoactive drugs on the propensity for illegal behaviour, including, e.g. violence, is also researched.

The interrelations of Polish geography of crime with other academic disciplines

It has already been mentioned that several trends can be observed in Polish geography of crime (which mainly researches urban areas). The first and most popular one is associated with the analysis of the distribution of crimes and identifying those places in which they are concentrated. In this research trend, the authors often attempt to define the factors determining such distributions, although the methods of spatial analysis are not yet common (Bartnicki 1986; Mydel 1989; Mydel & Kozimor 1989; Jaroszewska-Brudnicka 2001; Wendt 2001; Głaz & Ilnicki 2004; Bajerski 2006; Mordwa 2007, 2011a, 2013b, 2014a Bogacka 2009a,b; Sypion-Dutkowska 2012). In this work, the connections with spatial economy, criminology, urban studies, GISc and crime mapping are visible.

A smaller proportion of articles belonging to this trend describes those suspected of criminal behaviour, locations of crimes, and the socio-demographic characterisation. The relationships between geography and sociology or criminology are observable therein (Bartnicki 1987; Mydel & Kozimor 1989; Jaroszewska-Brudnicka 2001; Mordwa 2013a,b). The second research trend deals with analysis of the influence of the media on the creation of the image of the scale of crime. Several articles on this subject mainly analyse press publications (Guzik 2000a,b; Marcińczak & Siejkowska 2004; Bogacka 2009b). The authors of such research always emphasise the power of the media and their influence on our sense of safety (the domain of studies of sociology, psychology, social communication and media). Another trend of research manages the issue of the perception of dangerous areas, that is, it alludes to the concept of the division of the city into 'good' and 'bad' (Bartnicki 1988, 1991; Maik 1995; Guzik 2000a,b; Marcińczak & Siejkowska 2003, 2004; Dolata & Kotus 2004; Foland & Górecki 2007; Szybel 2011; Bogacka 2009b; Mordwa 2013b). The work referring to this trend shows clear reference to the theoretical and methodological techniques of humanistic and behavioural geography, which are clearly associated with sociology and psychology (especially environmental psychology). Also, there are several publications dealing with research on the sense of safety, the threat of crime, or, more generally, the geography of fear in association with psychology, sociology, criminology and victimology (Dolata & Kotus 2006; Maik 1995; Mordwa 2010, 2011b,c, 2012c,d, 2013b). Research into victimology, which comprises the next trend in studies, is currently only conducted by a few. Some researchers realise that police statistics often have restricted interpretations, but the results of victimological research can constitute an alternative source of information about the level of crime in the study area (Mordwa 2012a, 2013b).

In the publications of Polish geographers in various fields of the geography of crime,

a spatial approach, unsurprisingly, predominates. Moreover, work that is empirical in nature, with the part explaining the spatial layouts described rarely relating to data with geographical references, also dominates. In the publications referred to in this part of the article, the authors often invoke various inspirations from other academic disciplines. However, they are merely enumerated and their creative modification and use for a transformation that would enrich the geographical element is hardly noticeable. The only exception spotted by the author comprises the references and use of the work of the Chicago sociological school by Polish geographers. Aside from that, Polish geographers have not entered into an institutional cooperation with the representatives of other disciplines. In one case, a geographer co-authored a publication with a person outside the geographical field – from the psychology department. Still, it involves a wider issue connected with the low number of interdisciplinary projects in Polish academic work in general.

The author of this work has no doubts that the prospects for the development of geographical research on crime in Poland can be achieved only by establishing cooperation with the representatives of other academic disciplines, but also with a circle of practitioners (which is probably even harder to achieve). The author enviously observes the publications of Anglo-American researchers – created on the basis of such cooperation.

Conclusions

Polish geography of crime is poorly developed – it is puzzling both from the perspective of the issue researched and in relation to the much larger scale of research on the spatial aspects of crime in Western countries. In Poland, there are only three geographers that have turned crime into the main focus of their scientific interest. These people deal with a wide range of research issues in many aspects of crime. The knowledge of other studies and issues raised by the representatives of different disciplines is also evident

in their work. Drawing upon the results of other disciplines is quite rare in the works of the remaining Polish geographers.

The main reasons for the current condition of Polish geography include:

- The existence of no traditions involving this type of research in the Polish academic environment – also in other Polish academic disciplines. However, the article emphasises a certain increase in publications in the field of the geography of crime in recent years. Moreover, the article not only outlines the research issues undertaken by Polish geographers, but also indicates the possibility of academic interest in new problems.
- The lack of cooperation with other disciplines (also due to the perception of geography itself as a whole). Therefore, this work indicates the possibility of becoming inspired by the works of other academic disciplines.
- The lack of interest on the police side in the matter of: 1. cooperation, 2. the enabling of data, 3. the practical use of research results.

Modern research issues, the manner of approaching the methodology of research, and theoretical concepts undoubtedly have

a direct relationship with the models established by world geography. However, it is worth mentioning that while the geography of crime abroad became part of ideological and evaluative discussions, Polish geography of crime represents a behavioural trend with a visible influence of neoscientist methodology. Hopefully, modern openness to ideas and an unhindered exchange of thought within the scientific space should bring an extensive development of theories and methodologies, possibly inspired by the achievements of other academic disciplines.

E. Durkheim once said that crime is a normal phenomenon – it always was, is, and will be in any environment. There are no doubts about that. Still, the representatives of many academic disciplines attempt to restrict the effects of this social pathology as much as possible, which can be supported only by mutual cooperation and drawing upon each other's works.

Due to our social expectations of living in the safest possible environment, one should hope that the condition of the academic disciplines engaged in researching crime and supporting the work of the safety-ensuring authorities, including that of the geography of crime, will improve.

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