

# **Discussion and Comment**

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## DISCUSSION AND COMMENT

*By Gisela Trommsdorff*

Daily rhythms in human emotions and behavior are well known in biology, neurophysiology, psychology (e.g. body temperature, heartbeat, activity, perception, working behavior). Melbin's study on city rhythms represents an interesting and important contribution to the question of rhythmic processes of human behavior in an urban setting. Melbin asks how a city works and acts on its inhabitants, and whether city life can be analysed in terms of systematic variation of behavior over a 24 hour period of time.

Melbin aims to (a) detect rhythms of emergencies in order to (b) diagnose problems of urban living and (c) suggest means of ameliorating the symptoms and causes. To achieve these goals, first one has to select reliable and valid indicators for emergencies in urban settings. Melbin uses the entire set of records of emergency calls to the telephone company and investigations by the police department of Boston for seven weeks. These data do not necessarily give reliable information on the total population of emergencies in a city: they are second-hand reports, possibly distorted by subjective interpretation. Though we do not have a complete picture of what is really going on in the city, we can study the timing of communication emergencies in a metropolitan area. Can the data point out the causes of urban problems?

Melbin assumes that the reported emergencies are a result of tensions; these tensions are related to urban problems. Tension release (emergencies), in turn, produces further problems.

Thus, the theoretical and methodological problem is to investigate causes of tensions and cyclical tension release in urban living.

The communicated emergencies are classified into categories such as suicide, drunkenness, drug-taking, threats, fighting, and other disturbances of public order. Accord-

ing to Melbin these incidents represent two patterns of tension release, "self-focused" problems and "events that inflict suffering on others". Thus, it is assumed that communicated emergencies really represent only one dimension of urban problems, that is "tension release".

However, neither the unidimensionality nor the validity of these indicators for tension release is discussed. Desirably, the choice of such indicators would be guided by a theory of tension release and its social conditions in an urban setting.

Melbin's results show (a) trends of cyclical patterns of emergencies, and (b) positive correlations between the timing of various emergencies. These results support the assumption that some indices of urban violence do indeed represent the concept of tension release (e.g. "self-focused" problems such as stress, suicide, drug-taking, mentally ill conduct).

However, it seems highly questionable to view emergencies which consistently do not occur together (nonsignificant correlation of timing) as alternatives to one another. Such an explanation of "out-of-phase" occurrences implies that these incidents are caused by the same variable and fulfil the same functions. Possibly, tension may be the underlying cause, and certain urban conditions channel tension release in such a way that systematic sequences of emergencies occur.

Melbin explains the rhythmic occurrence of self-focused problems in the afternoon and other-directed emergencies at night by a "time territoriality" which implies differences in the strength of social control. Since informal and formal social control is strong during daytime and weakens at night, *external violence* occurs less frequently during daytime and rises at night. This phenomenon is well known from the literature on urban living (cf. Jacobs, 1961). However, can the concept of social control also explain the peak of *self-inflicted violence* like suicide in the afternoon? It seems questionable to treat suicide and other self-focused emergencies as equivalent to actions that inflict suffering on others. The psychological quality of tension which

is relieved by such acts may be different. If the social function of these acts is assumed to be equivalent, the kind of social function should be defined. If these different kinds of emergencies represent only one dimension (of urban problems) the following conditions would have to be fulfilled:

(a) Inhabitants of a city do suffer under tensions; (b) these tensions are so strong that they demand tension release; (c) tension releases may be self- or other-directed suffering; (d) if public control is weak, tension is released as other-directed violence; (e) if public control is strong, tension release cannot produce other-directed violence, instead, it is self-directed.

In order to test these assumptions it should be determined (a) who suffers under tension and why; (b) what kind of tension calls for what kind of release; (c) under what conditions tension is more readily released when public control is weak (e.g. why suicide attempts do not have their peak at night contrary to fights); and why some tensions are more readily released when public control is strong (like suicide). This should underline the question whether suicide and fights are equivalent or different expressions of tension release and whether both incidents are linearly related to public control. Or: Do people who suffer from tension look for release either in terms of fights or in terms of suicide?

The critical factor determining the kind of tension release would then be the time of day which, in turn, indicates whether public control is weak or strong.

Obviously, the indicators of internally directed violence (suicide) and the indicators of externally directed violence (public disorder and fights) do not represent various degrees of one single dimension.

Probably, different kinds of tensions are resolved under different circumstances (by different people) differently. Conditions which induce people to commit suicide do not necessarily induce them to engage in fighting.

As we know from studies on the causes of suicide, certain personality variables have to be related to certain situational conditions in order to increase the probability of suicide (cf. Seligman, 1975). Furthermore, the strengthening of public control may be a release for suicide attempts and may be a suppressor of fights, while the weakening of public control may not effect suicide attempts but induce externally directed violence. That is to say that public control does not necessarily induce the expression of one specific kind of tension release, but may encourage and inhibit different expressions of tension release and violence in different samples.

One may conclude that Melbin's data support the thesis that interaction density produces some public control and protects people from externally directed violence; this protective effect is highest in the early afternoon and lowest at night.

However, it remains to be explained why interaction density (or time of the day) works against violence between people but does not discourage self-induced violence. The theoretical questions remain: What are the determinants of emergencies? Are emergencies the product of tension and more or less violent tension release? What are the causes for such tensions and the factors inducing tension release? Future research on violence should work on these questions in a clearly defined theoretical framework which helps to construct valid instruments (Trommsdorff, 1978). In order to achieve the goal of curing problems of urban life, future research should, furthermore, work out adequate rules for transforming theoretical knowledge into programs of social action and change.

Melbin's study is an important step in this direction by giving empirical evidence for the cyclical occurrence of emergencies in an urban city. This phenomenon needs theoretical explanation.

## REFERENCES

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