Rethinking suicide: From pre-Durkheim suicidology to contemporary theories

Hong Kong Nguyen

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“The longing for order is at the same time a longing for death, because life is an incessant disruption of order.”

(Milan Kundera, *The Unbearable Lightness of Being* [1])

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18th-century studies

In 1897, the French sociologist Émile Durkheim published what is to become a foundational text in sociology and social psychology, titled *Le Suicide: Étude de Sociologie* (trans., *Suicide: A study in sociology*) [2]. Little known outside mainstream academia is how the scientific study of suicide—suicidology—had taken off in the preceding centuries [3,4].

Some earlier hallmark works include the German moral statistician Adolf Heinrich Gotthilf Wagner’s 1864 masterwork titled *Die Gesetzmaessigkeit in den Scheinbar Willkuerlichen Menschlichen Handlungen vom Standpunkte der Statistik* (trans., *The Lawful Regularity of Apparently Voluntary Human Actions Seen from the Standpoint of Statistics*) [5], the 1887 publication of *Suicide: An Essay on Comparative Moral Statistics*

by the Italian psychical researcher Enrico Morselli [6], and the 1892 comprehensive reviews of suicide research by the English physician Daniel Hack Tuke [7].

These early studies share the idea that grasping the statistics behind suicide could improve our understanding of the act itself. In his essay, Morselli posits suicide as a voluntary human act shrouded in “metaphysical obscurity,” all the while acknowledging suicide as inevitable during society’s natural course of development (p. 1). His argument is grounded on the idea that only statistics—which he calls “an exact science” (p. 10)—could provide us with true knowledge about social phenomena, such as suicide. Similar to Wagner’s earlier work, what Morselli lays out is the statistics of suicide, through which patterns of suicidal acts are observed, questions asked, and inferences drawn. For instance, where can irregularities in statistics on suicide be found? Is temperate climate a risk factor for suicide when regions with certain climatic conditions coincidentally mark a relatively higher rate of suicide? This line of the question—concerning the influence of climate and seasonal temperature—is later explored, questioned, and eventually rejected in Durkheim’s work.

According to Durkheim, psychosocial factors, rather than geographical and climatic conditions, play a more important role in determining suicidal attitudes and behaviors. He famously lists four types of suicide, namely (i) egoistic suicide, (ii) altruistic suicide, (iii) anomic suicide, and (iv) fatalistic suicide, with the first two related to social integration issues (e.g., social connectedness and interconnectedness) and the last two related to social regulation issues (e.g., anarchy, democracy, dictatorship, etc.). An extremely high or extremely low degree of social regulations may lead to suicide. His line of reasoning and approach, visualized in Figure 1, has become the epicenter of suicidology in the post-Durkheimian period.

Figure 1. Emile Durkheim’s four types of suicide

Contemporary theories

Fast forward to the 20th and 21st centuries, while scholars have developed sophisticated methods and models to study suicide and related suicidal factors, there is, in fact, little agreement on how suicidal thoughts arise.

Not only has suicide remained a major global health issue, but it also continues to elude human understanding to this day. In his extensive studies on the theories of suicide, John Gunn and David Lester divide them into two major categories: the psychological theories and the sociological and economic theories [8].

Integral to these theories are elements of: a sense of belongingness or social connectedness, perceived burdensomeness (the needs of a society supersede those of an individual), prolonged psychological pain, a sense of defeat, and entrapment.

Table 1 recaps the main content of some prominent contemporary theories of suicide.

Theory	Abbrev.	Origin	Authors	Keynotes
Economic theory of suicide	ETS	1974	Daniel S. Hamermesh, and Neal M. Soss [9]	Economic factors such as unemployment can be a predictor for suicide;
Network theory of suicide	NTS	1989	Bernice A. Pescosolido, and Sharon Georgianna [10]	Durkheimian; the continued relevance of identifying religion's effects on suicide rates; a network theory focusing on the relationship between social structures/relations and individuals' attitudes, beliefs, and behaviors.
Interpersonal Theory of Suicide	IPTS	2005	Thomas Joiner [11]	Suicide is an act resulted from a combination of the desire to die and the capability to die;
Fluid Vulnerability Theory	FVT	2006	Rudd David [12]	Integration of the cognitive and affective systems with motivational and behavioral systems;
Integrated Motivational–Volitional Model	IMV	2011	Rory O'Connor [13]	A tripartite framework of biology, psychology, and sociology that takes into account a sense of defeat and humiliation;
Three-step Theory	3ST	2015	David Klonsky and Alexis May [14]	(i) suicidal thoughts arise from pain combined with hopelessness, (ii) suicidal ideation in those suffering from pain and

hopelessness may escalate in the absence of social connectedness, and (iii) attempted suicide is the result of a combination of dispositional, acquired, and practical contributors to the capacity for suicide.

Conclusion: A new proposal

It is fascinating that the rich literature on suicide has yielded no satisfactory answer to the progression from suicidal ideation to action. In reviewing the extant research on suicide, one may note that there is a dearth of studies on suicidal thought processing. How do self-destructive thoughts arise and persist inside an individual's mind? What are the underlying mechanisms of such an ideation process?

Our research suggests that a multifiltering information system and mechanism, particularly that of the *mindsponge* model [15,16], can provide the much-needed explanation. Suicide, when viewed through the perspective of information processing, becomes one among a million other pieces of information constantly being introduced to and either absorbed or rejected by the mind. Here, just as how the 18th-century scholars of suicide have emphasized the use of statistics, we also suggest applying Bayesian statistics to improve our understanding of suicidal ideation [17-19].

The Bayesian information update process is appropriate for analyzing the way our minds receive information—whether it be values, beliefs, or attitudes—because it takes into account the uncertainties as well as the inflows of new information that may require an internal updating.

This approach is advantageous for it builds on and integrates existing theories of suicide. A mind susceptible to suicidal thoughts and behavior is one that may suffer from one or a combination of various factors, including but not limited to low social connectedness, high perceived burdensomeness, a high sense of defeat and humiliation, and the acquired capability for suicide.

The implications are clear; the complexity of suicide calls for an integrated approach, one that draws on prominent insights and theories as well as utilizes a robust statistical method.

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