



RESEARCH ARTICLE

**Johann Friedrich Herbart and His Mental State Theory: A
Critical Review of Psychological Research**

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ABSTRACT

The study of Johann Friedrich Herbart often overlooks a comprehensive account of his psychology. This paper focuses on the mental state theory, which is also the key to understanding the psychological thought. It comprehensively examines the mental state theory and related research materials, and explores the logical structure of this theory. The paper divides the mental state theory into several parts: the foundation of the theory and the mental state theory characteristics, the theory of the natural state of mind, the plasticity mental state theory, and the theory of abnormal states of mind. At the same time, this paper elaborates on the logical structure formed by the connections between these parts based on the exploration of each part. In short, Herbart's mental state theory is composed of various parts following a certain logical structure. Moreover, the mental state theory can provide insights into psychological studies today.

KEYWORDS: Psychological thought, mental state theory, logical structure, spiritual life

INTRODUCTION

Johann Friedrich Herbart (1776-1841) was a renowned German humanities scholar whose research fields included philosophy, education, and psychology. Traditional research on his ideas generally focuses on education and neglects the examination of his other ideas. In fact, in the history of psychology, he holds an important historical position. According to Browning (2014), referred to him as the "founder of modern psychology," indicating his pioneering contributions and unique historical position in the field.

The study of mental state has long been an important topic of concern in psychology. For psychological research, understanding the concept of mental state is the foundation for exploring topics such as mental health. Herbart has also put forward

a series of his own views on this topic. He views the essence of psychological life as a system inclined towards self-defense and coordination (Sillamy, 1988). This also means that his research on mental states is essentially an exploration of the states in which self-defense and coordination systems exist. One feasible examination is to study the logical structure in his mental state theory. The rationality of this exploration lies in his belief that the content of psychology is the study of the union or struggle between ideas, which is also in line with Locke's "systemic spirit" of constructing the overall picture of the world from experience. (Che, 1998; Gu, 1988) The connection between different concepts constitutes a logical structure, which corresponds to the mechanisms of interaction between different elements of mental states.

What is the significance of studying Herbart's mental state theory? The benefits of studying his mental state theory are diverse and abundant. His mental state theory can provide some inspiration for understanding individual psychological development, especially the influence of collective factors, in the field of psychology today. Moreover, it is of great significance in fields such as the development of new educational methods (Lim, 2005). However, the most important contribution is that it enables people to re-examine the disciplinary history of psychology. For instance, the study of the logical structure of his mental state theory enables people to re-examine the construction of conceptual systems in perceptual psychology. Thus, new perspectives are generated on the history of psychology. For example, this study supports Gregson's (1998) view that non-linear psychology had already emerged as early as the 19th century.

In fact, Herbart's mental state theory has not received the attention it deserves. Early scholars, such as Prantl (1880), did not elaborate on his psychological ideas. This situation persisted until Ballauf (1893), who

first mentioned his psychological ideas. After Flugel (1933, p. 384) affirmed his psychological thought, research on mental states began, almost a century after his death.

The earliest important evaluation of Herbart's mental state theory was by Wolman (1968), and since then, there has been a series of studies surrounding this concept. Some of these studies have explored his psychology itself, such as Lecadet and Mehanna's (2006) exploration from the perspective of mechanical methodology, and Landerer and Huemer's (2017) exploration from the perspective of psychological construction. More research has focused on the connections with his other fields of thought, with representative examples being Moro's (2006) exploration of the connection with aesthetics, Jahoda's (2009) exploration of the connection with metaphysics, and Lim's (2010) exploration of the connection with education. These studies on Herbart are more contextual rather than analytical, which makes analytical research particularly important.

This paper examines Herbart's discourse and research literature on mental states, attempting to explore the mental state theory through its various components and their logical connections.

THE THEORY OF MANTAL STATES: ORIGIN AND DEVELOPMENT

In fact, Herbart's mental state theory is built upon some more fundamental theory in the fields of psychology and philosophy.

In the field of psychology, Herbart's mental state theory is based on several key ideas, including his views on psychology. He believes that psychology is an experiential, mathematical, scientific, and non-analytical discipline, that is, both mechanical and soul-mechanical (Boring, 2017). Therefore, mental states can be seen as a system in which various concepts move through the mechanical action of soul power. He criticized Christian Wolff's 'functional psychology', which was popular at the

time, and based on this criticism, shifted the focus of psychology towards the simplicity and essential unity of inner life (Merz, 2016). This emphasis on the simplicity and essential unity of inner life aligns his psychological approach with Gottfried Wilhelm Leibniz's Appearance psychology. This also means that he believes the mental state is a manifestation of a deeper level of consciousness. It also describes the unified integration ability of the various components of the mental state, which have different characteristics such as multi-level and differences.

In addition to psychology, Herbart's mental state theory is also based on some philosophical theories. In his view (2002), psychology itself belongs to an applied metaphysics. In the field of philosophy, two theories are related to his mental state theory:

1. His exploration of physical and mental issues. He (2002) believed that the mind is generated by a specific part of the body and moves within that part. This also means that he acknowledged that mental states are to some extent influenced by physical states through the interaction between mind and body.
2. His realism posits that humans cannot derive tangible things through principles (Feng, 2008). Therefore, the argumentation process regarding mental states should be based on psychological experiential materials rather than on theoretical assumptions.

In summary, Herbart's mental state theory is based on a mechanistic definition of psychology and a critique of Wolff's 'functional psychology.' It has also gained philosophical support for exploring mind-body issues and supporting realism by viewing psychology as applied metaphysics.

THE MENTAL STATE THEORY: CHARACTERISTICS

The characteristics of Herbart's mental state theory describe the nature of the mental state itself, which is the most fundamental

aspect of the theory.

Herbart starts from the developmental stages of life and attempts to identify various laws governing mental states. Based on this, he roughly divides human life into several stages from an individual perspective, including growth, prosperity, and decline, and derives several characteristics of mental states:

1. The mental state is largely shaped by the state of life. He (2002) observed that individual differences in adults are greatly influenced by differences in childhood experiences, and that the excitement of conceptual changes caused by external impressions is a phenomenon that humans need. He believes that mental states largely depend on the life states experienced by individuals.
2. The mental state has characteristics of uniqueness, uncertainty, and suspense. He (2002) argues that since mental states are largely shaped by life states, it is natural for mental states to have similarities with life states to a large extent, and are therefore similar in characteristics.”
3. The variability of mental states is due to the fact that mental states are shaped by objectively variable living conditions and have unique, uncertain, and suspenseful characteristics, leading to general variability at the individual level as a whole.

Herbart's revelation of the characteristics of mental states, especially the general variability of mental states, sets the tone for the entire mental state theory. His mental state theory should be regarded as a model for describing the entire mental state system. The characteristics of this theory make the objects described in this model variable, which also means exploring the reasons, patterns, and influencing factors of these changes, namely, the natural state of mind and external influences. Meanwhile, under the premise of these characteristics, it is possible to describe and analyze the

abnormal state of the mind.

In summary, Herbart's mental state theory characteristics are the foundation of his mental state theory, which posits that human psychological states are subject to individual growth experiences, and are unique, uncertain, and universally variable. These characteristics enable the model for describing psychological states to describe changes in psychological states, their causes and patterns. They also make it possible to describe and analyze abnormal psychological states.

THE PLASTICITY THEORY OF MENTAL STATE

The plasticity of mental states, or the theory of external influence, is the study of another influencing factor, namely external influence. Regarding external influences, Herbart has initiated a series of discussions:

1. Classification of external influences. For individuals, different external factors have different effects on them. However, He (2002) starts from different stages of life development and believes that the different external environments of minors and adults lead to different main external influences they are affected by - the former is the influence of their original family, and the latter is the influence of social class. But he did not pay much attention to the mental state of minors, which is also easy to explain. The original family is essentially an adult environment, which also means that minors are actually more indirectly influenced by class.
2. The shaping of mental state by social class. In his view (2002), class is a product of the natural development of nations, and its existence inevitably leads to the concept of appropriateness of self-division of labor among adult individuals, who construct their social positions by judging the appropriateness of their actions. The key here is the concept of appropriateness. In his view (2002),

if an adult individual concentrates his actions on appropriateness, it will generate an external characteristic and praise for each class. And class shapes adult individuals through an external characteristic and praise for each class.

3. Many political or social phenomena can be explained by the shaping of social classes. He (2002) said, 'The combination of cultural level, national sentiment, and conscience with a historic national temperament largely controls, enhances, and attacks individuals.' The most classic explanation among them is the explanation of class conflict. In his view (2002), class conflict arises from incorrect external characteristics and praise for each class. This will inevitably shift the purpose by means, causing certain parts to be forgotten, and leading people to direct their thoughts and beliefs towards their actions, thereby causing and expanding class contradictions. This psychological explanation not only connects psychology with political science or sociology, but also reveals the relationship between individuality and collectivity in society. This explanation also successfully explains why temperament has historical characteristics - because the shaping effect of external influences on an individual's mental state has historical characteristics.

It is necessary to add a point here to better understand his plasticity mental state theory. As a follower of Kant, he inherited the critical opposition of *prolegomena zu einer jeden künftigen metaphysik: die als wissenschaft wird auftreten können* to the notion that the diversity of individual talents and the concept of causes and effects belong to the category of ideas that cannot be preserved through experience (Croce, 2018; Herbart, 2002). This opposing attitude has also enabled the development of the plasticity mental state theory.

In summary, Herbart's plastic mental

state theory explores the impact of external factors on psychological states: for individuals, their upbringing and social class shape their psychological states; for collectives, social class shapes their psychological states and even leads to many political or social phenomena. In addition, adhering to the diversity of individual talents and the empirical concept of causality in Kantian philosophy also makes the shaping of external factors more reasonable.

THE THEORY OF THE NATURAL STATE OF MIND

After categorizing the factors that shape mental states into variables of natural states and external influences, Herbart further explored these two categories. The natural state, which is a concept relative to external influences, is an ideal existence.

Herbart (2002) argues that an individual's natural state is actually determined by sensitivity to quality, gender differences, and racial talent, but its impact on the latter two is not discussed much, which seems unimportant. That is, among the influencing factors of an individual's natural state, the main one is sensitivity to quality. He elaborated on the sensitivity to quality:

1. Individual quality sensitivity can be explained. He (2002) believes that the sensitivity of each individual's qualities can be explained psychologically through his judgment of their psychological tendencies.
2. The classification of quality sensitivity should divide it into two types: that related to feelings (such as pleasure and depression) and that related to emotional impulses (such as being easily agitated and inactive) (Herbart, 2002).

Herbart named these qualities 'sensitivity' after an ancient psychological concept, temperament, which was initially used by Claudius Galenus to describe a stable psychological characteristic in psychological activity. Regarding this concept, he has made several arguments:

1. The concept of temperament contains physiological meanings. In his view (2002), temperament is a characteristic that, due to certain influences, strengthens emotions, which interfere with the transformation of sensation and thought.
2. Temperament follows the principle of mixing. In his view (2002), opposing temperaments of the same kind cannot coexist simultaneously, and so-called mixed temperaments can only be produced when combined sequentially.
3. There is a swaying temperament. When temperament exists in a special situation (more precisely, with high sensitivity), it can be called a swaying temperament. He (2002) attributed the reason for this special situation to emotions that activate the organism and seek a basis for resonance, and the enhancement of the basis for resonance leads to the existence of some form of organism's compliance.
4. Determination of temperament type. The temperament classification and being in a certain state discussed earlier require a judgment standard for classification, and according to his psychological thought, it is definitely a mathematical standard. He (2002) proposed a mathematical method for determining temperament types by calculating the average value.

Herbart's theory of natural states provides relative theoretical scopes for his theory of external influence, and also provides a theoretical basis for the existence of innate anomalies in the theory of abnormal states. The concept of swaying temperament makes the existence of innate anomalies possible.

In summary, Herbart's theory of natural states describes the ideal existence of 'natural states' relative to external influences, and argues that these states are determined by sensitivity to qualities, gender differences, and racial talents. Among them, quality sensitivity is the most important, and can

be divided into sensitivity related to sensory experiences and sensitivity related to emotional impulses based on interpretability. Regarding sensitivity, he determined its physiological significance, the principle of mixing, and the determination of types, and pointed out the existence of swaying temperament.

THE THEORY OF ABNORMAL STATES OF MIND

Herbart's description of abnormal states can be roughly divided into definitions of abnormal states, the reason for the abnormal state, the mental disorder when awake and healthy, and other mental abnormalities.

The definition of abnormal states of mind is actually a very difficult problem. Because in Herbart's view (2002), the high similarity between emotions, negligence, and hobbies makes it difficult to contrast the normal and abnormal mental states of a person. So he used another approach to define abnormal states of mind: deriving abnormal states of mind by defining normal mental states. He inherited Kant's view, viewing normal mental states as healthy judgment, healthy rationality, and healthy comprehension, all of which point to the interrelationships between all ideas and desires in the mind. So the definition of abnormal states of mind is the uncertainty of the relationship between all ideas and desires (Herbart, 2002).

Regarding the reasons for the emergence of abnormal states of mind, Herbart attributed them to some shaping effects of external influences. The most classic example in his discourse is the study of the reasons for the inconsistency between an individual's appearance and existence. He (2002) believes that the reason for the disharmony between individual appearance and existence is the shaping effect of immature measures taken by the state, church, and other entities on individual external behavior.

Herbart conducted research on various abnormal phenomena. Among them, he

focused on the mental disorder when awake and healthy. He (2002) summarized the views of Philippe Pinel et al. and based on this, divided the mental disorders of wakefulness and health into five categories: madness, fury, foolish, dementia, and any combination of the first four. He also revealed the reasons for the mental disorder when awake and healthy: two physiological malfunctions, namely, physiological mechanisms that have no reason to resist clear experiences and emotions that are not difficult to recognize, solidify in the nervous system, leading to the idea that emotional support cannot stimulate physical changes in a relative way. He provided a detailed discussion on several abnormal phenomena:

1. Madness. He (2002) classified psychological phenomena such as aversion to the world and religious fanaticism as madness, and defined madness as erroneous ideas within a certain scope of thought that have already been put into operation, pointing out that madness originates from a pathological imagination. So how does pathological imagination arise? He (2002) believes that in the vast majority of cases, this pathological imagination stems from destructive desire, but does not rule out rational or physiological disruption. But He (2002) did not believe that pathological imagination is absolutely dangerous for a person's spirit, within a certain reasonable and ideal range, pathological expression can manifest as health. The reasonable and ideal range here is the situation where fixed thoughts are not connected and creative activity is present. Therefore, He (2002) believes that madness is essentially the rigidity of emotions and requires benevolent treatment and prevention to respond.
2. Fury. He (2002) defined Fury as engaging in destructive actions through external dangers, such as manic disorder. In His view (2002), Fury arises due to physiological reasons,

- namely the physical harm to the mind.
3. Foolish. He (2002) argues that foolishness is a lack of comprehension, due to physiological reasons that lead to the cessation of conceptual connections and irregular movement of ideas - which also means that longer critical time sequences are hindered over a longer period of time, leading to the nervous system having to combat stress, which, from a physiological perspective, has a certain degree of irreversibility.
 4. Dementia. He first distinguished foolishness from dementia in degree to ensure that the two were not confused. In his (2002) view, stupidity is mild dementia, while dementia as a mental weakness is divided into congenital dementia and dementia that opposes genius, with different characteristics.

In addition, Herbart also summarized and clarified the categories and relationships of some concepts related to mental disorder, which will help to understand these concepts. He (2002) believed that the opposite of mania and emotion is tranquility and composure, the opposite of foolishness and mental laxity is the combination and collection of thoughts, and the opposite of dementia and laziness is sensitivity and vitality.

Of course, Herbart's research on abnormal states is not limited to mental disorders during wakefulness and health. The reason why he (2002) focuses on the study of mental disorders when awake and healthy is that the vast majority of abnormal forms are similar to mental disorders. He also discussed other issues related to abnormal states, among which the most representative are mental illness and dream fantasies. He (2002) referred to a milder degree of mental disorder (madness, rage, stupidity, dementia) compared to being awake and healthy as a mental illness (appropriate hobbies, emotions, mental laxity, and sluggishness). Regarding the fantasies of dreams, he compared them to mental disorders when awake and healthy.

He (2002) pointed out that the fantasies of dreams have sensory consistency, diversity, and variability compared to mental disorders when awake and healthy. The 'consciousness valve' involved can be understood as a predecessor of the 'unconscious'. Unfortunately, he was limited by the cognitive conditions of psychology at the time and mistakenly regarded dreams as a mental state, causing him to miss further examination of dreams.

In summary, Herbart's theory of abnormal states describes these states as the uncertainty of the relationships between all ideas and desires, and attributes them to the shaping effects of external influences. It categorizes different abnormal states and mental illnesses related to wakefulness and health, and explores their causes and relationships.

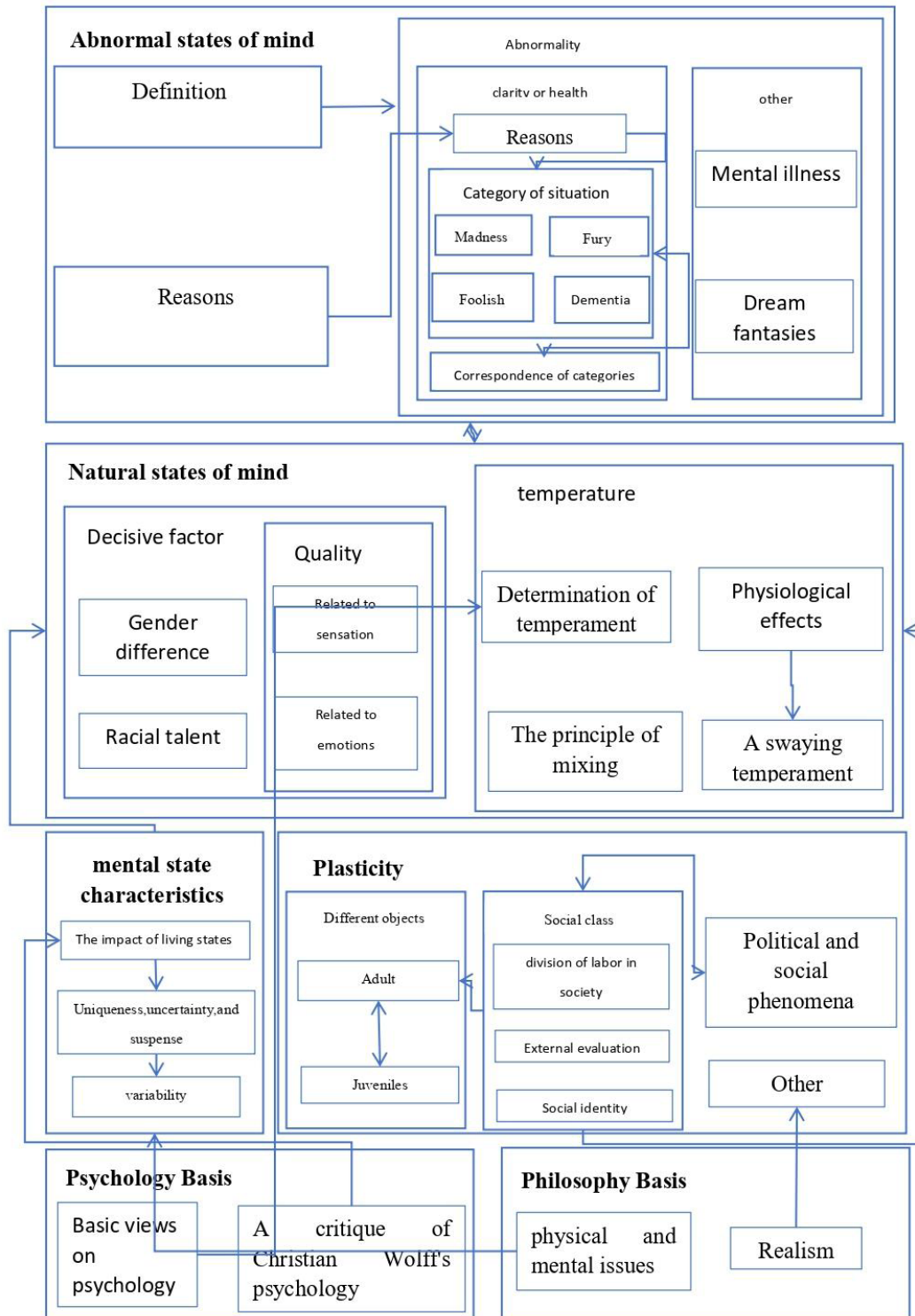
THE LOGICAL STRUCTURE OF MENTAL STATE THEORY

At the beginning of this article, we have completed the disassembly and analysis of various parts of Herbart's mental state theory. However, these parts often manifest as a whole, a logical structure connected in some form. This logical structure is represented in Figure 1.

Through the display in Figure 1, a rigorous and complete system of conceptual connections based on apperception has been demonstrated, which has also been the ultimate goal of research in apperception psychology for centuries. For understanding Herbart's mental state theory, this study presents the various concepts, hypotheses, and reasoning processes of each part, showcasing their logical relationships and mutual support. For today's research on mental states, his mental state theory has many historical limitations, but this does not mean that the theory has no value. The revision, supplementation, and integration of this system model can adapt it to modern psychological theories and practices (including but not limited to psychological counseling, psychological intervention, and

educational psychology), and apply it, because the basic concepts of conceptual connections are still consistent with today's psychology.

Figure 1
The Logical Structure of Herbart's Mental State Theory



The logical structure of Herbart's mental state theory also provides us with some insights into the development process of psychology as an independent discipline. We can see that he still regards psychology as a branch of philosophy and conducts research on this viewpoint. However, what sets him apart is that he draws on mechanics and uses mathematical methods to attempt to empirically process the concepts of psychology. These processing results are independent of psychology and serve as some theoretical prerequisites for the emergence of experimental psychology. The logical structure of his mental state theory is one of the outcomes of these treatments.

CONCLUSION

Based on the analysis of Herbart's works, the mental state theory is divided into the foundation of the theory, the mental state theory characteristics, the theory of the natural state of mind, the plasticity mental state theory, and the theory of abnormal states of mind. In addition, the connections between these parts, as well as the connections between sub-domains between parts, constitute the logical structure for organizing these different domain perspectives.

Herbart's mental state theory is only a part of his psychological thought, and the study of its logical structure is only a preliminary exploration. - There are still many topics issues worth exploring in depth. It is worth noting that his long neglected philosophical and psychological ideas have also been mentioned in this paper, but this is clearly far from sufficient for the study of his ideas.

There are more research issues of the mental state theory worth considering. - They will no longer be limited to the study of intellectual history, especially the study of Herbart's ideas. The mental state theory suggests that the exploration of mental states can not only be limited to psychology and psychiatry that encompass this field, but should also be extensively interdisciplinary.

For example, he mentions some viewpoints in philosophy, political science, or sociology. - This interdisciplinary approach can provide new perspectives for the study of mental states.

This paper also focuses on the history of psychology. Psychology should focus more on the history of its own discipline, especially the ideas in history. - They provide a wealth of materials for critical review. By re-examining and reflecting on these past psychological ideas, it can provide some research inspiration for future scholars. This paper demonstrates another benefit of this critical review - by mining previously overlooked ideas, it updates people's views on a certain period of psychology, thereby changing some inherent viewpoints in psychological history research.

AUTHOR CONTRIBUTION

I declare that this manuscript is originally produced by me.

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