

Transforming Teacher Education

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Abstract

Research in teacher education will not advance unless we can come up with new theoretical explanations for the big questions in schools, such as the question about students' non-cooperative school experiences. The goal of the study is to transform teacher education by gaining a deeper understanding of the factors impairing teaching. By integrating the disciplines of educational science and psychoanalysis, the current study explores the interplay between teachers' defensive mechanisms and their impact on teaching. The study will demonstrate, using the DMRS-Q-Sort and referring to the didactic triangle, how the "evidence-based" defense mechanisms can negatively affect teaching. The findings show that the evidence-based defenses of affect isolation, reaction formation, and denial affect teaching in several ways, such as promoting binary thinking, tunnel vision, moralism, and pseudoscientific beliefs of teachers. These defenses may impair the teacher's congruence, access to his teaching experience, learning from negative student feedback, self-expression and self-reflection, and counteract the core goal of mediating validated knowledge. The effects influence the students' experiences. The research summarizes possible major changes in teacher training for both preservice and in-service teachers to transform teacher education and students' school experiences, and it contributes to didactic research by proposing a dynamic network model with various connections.

Keywords

Teaching, Teacher Education, Didactic, Defensive Mechanisms

1. Introduction

Research in teacher education will not advance unless we can come up with new theoretical explanations for the many big questions in schools, such as students' non-cooperative school experiences (Reimer, 2006). In recent decades, researchers have made progress in understanding the impact of defensive mechanisms on

the person and psychological well-being (Tanzilli et al., 2022), mental health (Bodrini et al., 2020), personality disorders (Perry et al., 2012), and treatment process-outcome (Drapeau et al., 2003; Perry et al., 2012) have seen significant advances in psychology. In accordance with Schneider (2025), it is not only insightful to use the findings of psychoanalysis for psychological questions but also for educational research to better understand the problems of teaching (Reimer, 2006).

Mayes (2009), who examined in his literature review the psychoanalytic educational approaches from 1922 to 2002, stated that the transference dynamics in teacher–student relationships were the most important problems of teaching and learning studied by psychoanalytic researchers. Although psychoanalysts and educational scientists have studied the implications of psychoanalytic theory for education (e.g., Bettelheim, 1969; Britzman, 2011; Freud, 1979; Hofer, 2017; Kris, 1948; Mayes, 2009; Rasey, 1946), as far as we know, only a few studies have examined the influence of teachers’ defensive mechanisms on teaching (Saleem & Lodi, 2025; Sivakumar & Arun, 2019; Tang, 2020).

Having greater insight into the interaction of teachers’ defensive mechanisms and their teaching would yield useful information about dysfunctional teaching and improving teaching. The American Psychiatric Association (2013) defines the concept of a defensive mechanism as an automatic psychological mechanism.

The current study will focus on the teacher and his defense mechanisms in the process of teaching, aiming to explore the interplay between teachers’ defensive mechanisms, particularly “evidence-based” ones (Baumeister et al., 1998), and their impact on teaching. The question is about how these types of teacher defense mechanisms affect the pedagogical process.

2. Literature Review

Sigmund Freud originated the concept of defense mechanisms in 1894 in his work “The Neuro-Psychoses of Defence.” He defined defense hysteria as “an occurrence of incompatibility in ideational life” (Freud, 1962, p. 47). The “ego was faced with an experience, an idea, or a feeling which aroused such a distressing affect that the subject decided to forget about it because he had no confidence in his power to resolve the contradiction between that incompatible idea and his ego by means of thought-activity.” (Freud, 1962, p. 47)

Even though education and psychoanalysis may share similar objectives—such as enabling individuals to reach their utmost potentials (Bettelheim, 1969)—the theory of psychoanalysis has been applied “as a method of treatment,” rather than “...with a particular view of human development” (Bettelheim, 1969, p. 74). However, a theory of human development could inform education about the insights on how to approach “the goal of education [or the learning/teaching process]” of “a well-balanced personality where both id and superego are subordinated to reality, to the ego.” (Bettelheim, 1969, p. 83) For Sigmund Freud (1976, p. 402f.), an educated ego “seeks to obtain pleasure ... assured through taking account of reality” (Freud, 1976, p. 402f.). It would be the responsibility of education to promote

the ego.

Anna Freud (1979) conducted extensive research on defense mechanisms, drawing on her father's work. According to her, psychoanalysis could provide a foundation for deepening the teacher's understanding of affects and unconscious processes and strengthening the relationships with learners (Freud, 1979). Referring to Anna Freud (1979, p. 94), understanding the student's psyche and the three-part psychical apparatus allows the teacher to identify that "the contradictions in his behaviour are to be explained ... when you learn to recognise behind his different reactions that part of his being which at this particular moment predominates." This insight should lead the teacher to disengage from the emotional tension triggered by the student and to identify and stimulate the development of a student's personality towards ego strength, as the goal of any learning/teaching process (Freud, 1979, p. 94).

Anna Freud (1979) advocated in the thirties of the twentieth century the ethical demand that teachers become aware of their conflicts. Such awareness would allow them to control the reenactment of old conflicts that present themselves in new pedagogical encounters (Britzmann, 1991). The current preservice and in-service teacher education characterized by Britzmann (1991) through remedy, control, and expertise is limiting the ethical obligation of teachers to work on their conflicts.

The following section will refer to the few research studies that focus on teachers' defense mechanisms using a psychoanalytic-educational perspective. Based on a sample of 400 private and government school teachers in Lucknow, India, Saleem and Lodi (2025) found that 53.1% of the school teachers (N = 212) exhibit a moderate level of defensive behavior, while only 12.1% (N = 48) show a high level of defenses, meaning that the latter "is likely to rely heavily on defense mechanisms" (Saleem & Lodi, 2025, p. 12). Using the Defensive Behavior Rating Scale (DBRS Questionnaire), the data show that identification (mean = 7.5) and compensation (mean = 6.2) are the most common defense mechanisms, whereas displacement (mean = 2.4) and projection (mean = 2.5) are the least used. While there are no differences in overall defense mechanisms, private school teachers predominantly exhibited defensive mechanisms such as repression, reaction formation, conversion, and displacement, while government school teachers displayed higher levels of mechanisms like denial and projection.

Sivakumar and Arun (2019) conducted a similar study, exploring the defensive behavior among a sample of 294 school teachers in the Coimbatore district in India. The Defensive Behavior Rating Scale (DBRS) was also adopted, as structured by S. Sathiyagirirajan (Sivakumar & Arun, 2019). The results revealed that the school teachers showed a moderate use of defensive mechanisms. However, the use of the defense behavior greatly depends on their gender, year of experience, and school location (Sivakumar & Arun, 2019). For instance, compared to the women of the study, males have lower average levels in compensation, projection, rationalization, displacement, reaction, and repression. Furthermore, a significant

disparity exists between the teachers interviewed in rural and urban schools with respect to compensation, projection, rationalization, belittling, displacement, conversion, reaction, and repression, with rural teachers having lower average levels. There is also a significant difference in daydreaming, compensation, and rationalization between school teachers with less than five years of experience and those with more than five years. The average levels are found to be lower for teachers with less than five years of experience in this study.

Tang (2020) studied 247 in-service teachers from colleges and universities in Heilongjiang Province, China, to explore how their psychological control source and self-defense strategies are related. Using the Internality, Powerful Others, and Chance Scale (IPC) and Defense Style Questionnaire (DSQ), Tang (2020) found a strong correlation between the control source and the types of defense mechanisms people use. The results indicated that immature defense mechanisms are negatively correlated with internality and positively related to powerful others and opportunities, while mature defenses are positively correlated with internality, powerful others, and opportunities (Tang, 2020, p. 286ff.). The intermediate defense mechanism is positively correlated with powerful others and opportunities and negatively correlated with internality, though not significantly (Tang, 2020, p. 286ff.). Since different sources of psychological control lead to different behavioral responses, attributions of success or failure, and attitudes, the external behavior is the application of a self-defense mechanism to reduce the negative feelings and “cope with the self-driven, the pressure of the superego, and the requirements of the external reality” (Tang, 2020, p. 286).

All three studies that interestingly took place in Asia examined teachers’ defensive mechanisms in terms of their frequency and their relationship with other sociodemographic and psychological variables, as well as their predictors of sources of control. The studies indicate that a moderate level of defenses characterizes these samples of in-service teachers, and the control sources play an important role in displaying defensive mechanisms. Studies available to the author that focus on teachers’ defense mechanisms show that no research has investigated the interplay between teachers’ “evidence-based” (Baumeister et al., 1998) defensive mechanisms and their teaching performance.

We understand teaching as “...alle Akte der unterrichtlichen Vermittlung von Lernprozessen...” (Klingberg, 2005, p. 14). (translation: K.S. all instructional acts of the mediation of learning processes) “Lehrakte können sein: Anregen, Helfen, Zeigen, Vormachen, Bestärken, Korrigieren, Bewerten usw. Vermittlungsfunktion des Lehrens, d.h.: Lehrende vermitteln primär nicht “Stoffe”, sondern die Beziehungen der Lernenden zu den “Stoffen”/Inhalten/Gegenständen; sie vermitteln Lerntätigkeiten.” (Klingberg, 2005, p. 15). (translation: K.S. “Teaching acts can be stimulating, helping, showing, demonstrating, reinforcing, correcting, evaluating, etc. The mediating function of teaching, i.e., teachers do not primarily convey “materials” but rather the relationships of the learners to the “materials”/contents/objects; they convey learning activities).

In a working definition, teaching is understood as a social act to support a learner to learn. Learning is defined as “the acquisition of knowledge through reasoning” (Schneider, 2024, p. 791), and reasoning is the process of drawing conclusions (Leighton, 2004; Angeles, 1981). Consequently, teaching will be defined here as a social act that supports a learner in acquiring knowledge through reasoning. Teaching and learning are interrelated. We will assume that defense mechanisms interact with teaching. With the current study, a foundation will be laid for future empirical studies and educational interventions to enable teachers to reflect on their defense mechanisms and develop mechanisms that are more appropriate for teaching.

3. Theoretical Foundation

This study used the psychoanalytical model of the ego as the theoretical framework to analyze the influence of psychic conflicts on teaching. Sigmund Freud, who introduced the structural model of the ego (Freud, 1961), conceptualized the human psyche as comprising three interrelated instances: the id, superego, and ego. While the id strives to satisfy its wishes, needs, and impulses, the *superego* represents the conscience and the ideals. The ego serves to find a balance between the instinctual needs of the id, the conscience and the ideals of the superego, as well as the demands of reality. Conflicts emerge from the interaction among the id and the ego, the id and the superego, the id and the outside world, the superego and the ego, the superego and the outside world, and the ego and the outside world (Freud, 1966; Vaillant, 2000).

Freud regarded the unconscious as one of the more ‘dynamic’ elements, in contrast to the conscious mind. (Bibby, 2011). To comprehend these dynamic elements in teaching, which are considered part of the teaching process (Low, 1928), the study will make reference to the theory of psychoanalysis. Their concepts provide an opportunity to reflect on and analyze how unconscious dynamic processes between teacher and student affect the outcome (Hylgaard, 2020, p. 17).

In the book “The Ego and the Mechanisms of Defense,” published in 1936, Anna Freud presented a theory of the mechanisms of defense resulting from her studies with the theory of psychoanalysis developed by her father, Sigmund Freud. According to Anna Freud (1966, p. 69), the defense mechanisms stem from three types of anxiety: instinctual anxiety, anxiety of conscience, and object anxiety. Instinctual anxiety results from the conflict between the id and ego, while the anxiety of conscience is rooted in the conflict between the ego and superego, and the struggle between the ego and the outside world leads to object anxiety. The ego uses defense mechanisms to reduce the resulting anxiety-arousing thoughts and aversive feelings (Freud, 1966).

Baumeister et al. (1998) looked at research in social psychology to find proof related to seven Freudian defense mechanisms: reaction formation, isolation, undoing, denial, displacement, projection, and sublimation. The context of their study was normal populations, moderate rather than extreme defenses, and protection of self-esteem against threats (Baumeister et al., 1998). The review’s analysis revealed

extensive support in studies for the defensive mechanisms of isolation, reaction formation, and denial (Baumeister et al., 1998). Undoing is also well shown, although it does not have the function to defend against a personal threat (Baumeister et al., 1998). Despite its apparent nature, projection can be considered a consequence of defense rather than an integral part of the defensive reaction (Baumeister et al., 1998). Displacement is not well documented, although the arousal states transfer from one situation to another. For sublimation, the authors did not find evidence in their review (Baumeister et al., 1998). Based on the results of the study conducted by Baumeister et al. (1998), this study focuses only on the defenses of isolation, reaction formation, and denial, for which Baumeister's review shows strong empirical evidence that these defenses are prevalent in the normal population.

4. Methods

Theoretically, it will be explained how the "evidence-based" (Baumeister et al., 1998) defense mechanisms can impair teaching by relating to their definition and operationalization. The DMRS-Q-Sort will be used to operationalize each of these defense mechanisms, allowing for an analysis of their relationship with the components and dynamics of teaching.

Regarding the modeling and operationalization of defensive mechanisms, one of the most established frameworks in this field is the hierarchical model proposed by Vaillant (1971, 1992, 1995) and operationalized by Perry (1990). Perry (1990) developed the Defense Mechanisms Rating Scales (DMRS) that he derived from Vaillant's model. The DMRS laid the foundation for defining and operationalizing the defense mechanism analyzed in the current study. Three defensive categories that have different levels of adaptiveness ranging from mature over neurotic to the immature defenses are tested by the DRMS (Di Giuseppe & Perry, 2021; Vaillant, 1971, 1992, 1995). DMRS-SR-30 has good psychometric properties (Prout et al., 2022, p. 833).

The defensive mechanisms investigated in the current study include isolation of affect as an obsessional defense, reaction formation as a neurotic defense, and denial as a disavowal defense. While isolation of affect and reaction formation are classified as neurotic defenses, denial is considered a less adaptive defense mechanism and falls under the category of immature defense mechanisms. In line with Vaillant (1971, 1992) and Perry (1990), Table 1 shows an overview of the three selected evidence-based defense mechanisms, including their definitions.

Table 1. List of the defense mechanisms to be analyzed adapted from Di Giuseppe and Perry (2021, pp. 3ff).

Defense Level	Individual Defenses	Definition
Level 6: Obsessional Defense Level	Isolation of affects	"...by being unable to experience simultaneously the cognitive and affective components of an experience, because the affect is kept from consciousness."
Level 5: Neurotic Defense level	Reaction formation	"...by substituting behavior, thoughts, or feelings that are diametrically opposed to his or her unacceptable thoughts or feelings."
Level 3: Disavowal Defense level	Denial	"...by refusing to acknowledge some aspect of external reality or of his or her experience that would be apparent to others."

Regarding teaching, several process models exist, each offering a framework for understanding the various components involved in effective teaching. These include models like the instructional systems design model (ISD) that represents an approach to designing educational programs (e.g., Reigeluth, 1999); the Five E's model consisting of the five phases: engage, explore, explain, elaborate, and evaluate (Bybee, 2009); and the reflective teaching model that typically follows a cycle of planning, teaching, and debriefing (Hart et al., 2004). These models are useful to conceptualize the teaching process and to guide teachers in developing effective instructional strategies. However, the following study focuses on the teaching process itself. For this reason, it will be referred to as a model representing the basic components of teaching in their relations, which in the earliest version dates to Johann Friedrich Herbart (1964). The so-called didactic triangle focuses on the phenomenon of teaching with the following factors and relations (Klingberg, 2005).

S. *The student* with his individual biography and subjectivity within the context of his class.

LO. *Learning objects* as objective demands on the learner coming “from outside.”

T. *Teachers* as pedagogical/didactic/psychological mediators of contradictory S-LO relationships through mutual opening up of the student to the “matter” and the “matter” to the student. This process is the main function of school teaching.

Relations:

A. Basic relationship of *learning* (Student–learning object).

B. Mediating function of *teaching*, i.e., teachers convey the relationships of the learners to the “subject matter”/contents/objects; they convey learning activities (didactic competence).

C. *Teacher-student relationship* (pedagogical competence).

D. *Teacher-learning object relationship* (expertise).

Similarly, psychoanalyst Hyldgaard (2020) regards education and teaching as a relation between student(s) and teacher(s) that concerns a subject matter. The relation is about *something*. “Teaching is a relation because we teach a subject *matter*...” Hyldgaard (2020, p. 15).

5. Results

We will analyze how defense mechanisms interact with the basic relationships of teaching in the following. Defense mechanisms can arise in teachers during the teaching process when they experience feelings of displeasure, such as anxiety, frustration, stress, or perceived threats.

The analysis begins with the most adaptable defense mechanisms of those studied, specifically the level 6 *obsessional defenses*. They “...protect the individual from the awareness of unacceptable or threatening feelings associated with an idea (...) by keeping distance from emotions, while remaining aware of the idea itself” (Di Giuseppe & Perry, 2021, p. 4). The specific obsessional defense to be investi-

gated here in the interplay with teaching is isolation of affect. Isolation of affect is regarded largely as an unconscious process.

If an individual isolates the affect, he loses contact with the feelings resulting from an idea while remaining aware of the idea (Di Giuseppe & Perry, 2021). An example of isolating the affect occurs when an individual describes the details of a traumatic event without experiencing the feelings linked to it. The function of isolating the affect is that without "... associative connections, the threat will not be remembered often and cannot influence other spheres of mental activity. It cannot have any substantial effect on self-esteem or the self-concept" (Baumeister et al., 1998, p. 1100).

The defensive mechanism of affect isolation may affect teaching. A study conducted with 54 male university students showed that the defense mechanism of affect isolation relates to moralism, understood as the tendency to evaluate everything in terms of right and wrong (Björklund, 2000). Evaluating everything in terms of right and wrong is an indicator of dichotomous thinking, a way of rigidly processing information (Bonfá-Araujo et al., 2022). This specific distortion, which manifests in the face of dubious situations and leads to a binary understanding of stimuli, can significantly influence individuals' thoughts, feelings, and actions (Bonfá-Araujo et al., 2022). The close connection between affect isolation and cognitive distortion aligns with the research done by Machleidt (1998, p. 502). He asserts a connection between the cognitions and the underlying feelings: the more mature the underlying feelings are, the more differentiated the cognitive expression patterns become. Cognitive expression patterns become increasingly undifferentiated as underlying emotions and affects become more regressive. The isolation of affect impairs the maturity of the underlying feelings and cognitions.

If teachers disconnect from their emotions, they may show moralism and binary thinking, which can negatively influence their feelings and actions. Consequently, the defense of affect isolation together with the cognitive distortion of dichotomous thinking may impair the teacher-learning object and teacher-student relationships.

Regarding the teacher-learning object relationship, comprehending "events as only having two outputs may result in incompatibilities with the reality of facts (Bonfá-Araujo et al., 2022, p. 462). Forming a simplified, binary representation of reality contradicts the fundamental objective of education: conveying validated knowledge. The teacher's limited thinking makes it difficult for the student to understand the knowledge imparted and be understood by the teacher.

In terms of the teacher-student relationship, the realization of the basic human need for intersubjective relatedness ensures the development of a coherent self (Reimer, 2006). When a teacher disregards a student's emotions, such as shame about inadequate performance, the scenario raises the question of the extent to which the teacher is even able to access their own shameful experiences (Reimer, 2006, p. 223). Such an outcome might be an implicit indicator for affect isolation of teachers. Consequently, if a teacher isolates their affect, the student's need for

intersubjective relatedness— that is, acknowledgment of their feelings—will likely remain unfulfilled. This pedagogical issue is significant as the teacher, representing a secondary reference person for the student (Reimer, 2006), is unable to facilitate the preservation of the student's coherent self.

Isolating the affect may also impede the teacher's learning from his student relationship: When a teacher obtains a poor evaluation from his students, for instance, he or she may articulate the details of the results without addressing the associated feelings. In this case, for example, the teacher removes any emotions from the memory, with the consequence that this subjective representation can no longer trigger anxiety. A potential adverse outcome is that the teacher may judge the student's evaluation results as either right or wrong. If he deems them incorrect or wrong to protect himself, the teacher deprives himself of the possibility of learning from these evaluations and enhancing the teaching (Schneider et al., 2024).

The following example shows that the isolation of affect may concurrently influence both the teacher–student and teacher–learning object relationships. According to Carl Rogers (2000), a strong tendency to judge oneself or others, especially by good or bad, hinders the person—for example, a student—from disclosing their unwanted sides throughout the learning process and holds them back from learning from these aspects. Additionally, following Rogers (2000), emotional detachment signifies a lack of congruence. Rogers (2000) defines congruence as authenticity—both internally perceived and externally communicated. A deficiency in congruence in the teacher impairs his relationship with the learner, which is an essential prerequisite for personality development (Rogers, 2000). Thus, evaluating everything or everyone in terms of right and wrong, good or bad, simultaneously influences both the teacher-learning object and teacher-student relationships. This means that teachers who isolate affect act in an intersubjectively limited manner and have limited cognitive expression of the subject matter.

The isolation of affect, which is accompanied by a tendency to judge right and wrong, can be considered as an indicator of an imbalance between the id and the superego and the ego, as the evaluation originates from the superego. Therefore, we can infer that in the case of isolation of affect, a strong superego has been formed.

The moderately adapted neurotic defense mechanisms (Level 5) “reflect the experience that awareness of a wish, thought, or motive is unacceptable or threatening and must be kept out of awareness. The individual can experience feelings associated to an internal conflict or external stressor if full awareness of the idea (cognitive component) is blocked and expressed indirectly by way of a series of anomalous clues”. (Di Giuseppe & Perry, 2021, p. 4) The defense to be studied here is reaction formation, which is assigned to the neurotic defenses. “In reaction formation, an original impulse or affect is deemed unacceptable by the subject and an unconscious substitution is made. Feelings, impulses, and behaviors of opposite emotional tone are substituted for the original ones.” (Di Giuseppe & Perry,

2021, p. 9) For instance, exaggerated attempts to present oneself as peaceful might be used to counteract feelings of hostility (Baumeister et al. 1998). Reaction formation occurs when an individual exhibits emotion that is contrary to their actual feelings.

Incongruence may not only result from affect isolation but also from reaction formation because it leads teachers to act and feel contrary to their feelings, pedagogical beliefs, principles, and thoughts (Rogers, 2000). Reaction formation, for instance, may occur when self-appraisals rise following negative student feedback (Baumeister et al., 1998). Generally, exaggeration, marked by a certain rigidity, makes it impossible to address appropriately the pedagogical situation. Furthermore, reaction formation induces emotional exhaustion in the teacher and hinders appropriate self-reflection. Apart from the emotionally stressful condition, impaired self-reflection is pedagogically relevant, since research indicates (Kegan & Lahey, 2009) that self-reflection contributes to personal growth for a teacher, which positively correlates with the student's growth.

Regarding pedagogical ideals, Reimer (2006) argues that autonomy, which is a prevailing pedagogical ideal in Western societies, represents a reaction formation. Following Reimer (2006, p. 16), within this normative framework, the needs for affection, support, and protection, which can result from feelings of defenselessness and abandonment, are considered non-adult and thus denied. These needs are transformed into their opposite—the need for autonomy that is considered adult—and at the same time this need is transformed into the corresponding pedagogical ideal. According to Reimer (2006), this process collectively denies the basic needs for affection, support, and protection and reverses them into the opposite of autonomy.

Additionally, in terms of the pedagogical image of the altruistic teacher, Reimer (2006, p. 20ff) also states that this model is a reaction formation to the denied attachment needs in asymmetrical relationship systems, such as those in schools, and corresponds to the pedagogical ideal of autonomy. Teachers, who assume the more powerful role in these systems, fulfill their educational and caring duties (Reimer, 2006). According to Reimer (2006), in asymmetrical relationships, teachers are more likely to instrumentalize students to strengthen their threatened self-confidence. Altruism develops as a reaction to the feelings of shame and guilt that accompany this instrumentalization (Reimer, 2006). Instrumentalizing external objects to strengthen the fragile self, leads to the emergence of feelings of guilt (Reimer, 2006). As a result of this reaction formation, Reimer (2006) describes a “basic conflict typical of the time” as an example of the teacher-student relationship. The teacher struggles with the desire for recognition from his students (Reimer, 2006). Unsure of their expectations, he hesitates to express his needs and thus misses the opportunity to build meaningful relationships (Reimer, 2006). His frustration leads him to a misguided teaching strategy: with absurd demands, he provokes defensiveness in his students (Reimer, 2006). The resulting dynamic leads to a setting in which both, the students and the teacher increasingly frustrate

each other, thus intensifying the conflict continually (Reimer, 2006). According to Reimer, this challenging dynamic may lead to a “good” teacher who is free of emotional needs and aligns his actions with superego demands objectified in curricula and study regulations (Reimer, 2006).

The less adaptive defense mechanisms include the disavowal defenses and autistic fantasy on Level 3. “Disavowal defenses reflect the perception of the individual that some aspects of internal experience or external reality are unacceptable. By refusing to acknowledge these aspects of experience, the individual justifies not appropriating a problem as his or her own. The individual can further misattribute the problem to another source or reason, further covering up internal reality.” (Di Giuseppe & Perry, 2021, p. 4) Denial is a disavowal defense mechanism. Using this form of defense, the “subject actively denies that a feeling, behavioral response, or intention (regarding the past or present) was or is not present, even though its presence is considered more than likely by the observer. The subject is blinded to both the ideational and emotional content of what is denied. This excludes “psychotic denial” in which the subject refuses to acknowledge a physical object or event within the subject’s field in the present time”. (Di Giuseppe & Perry, 2021, p. 10) Following Cramer (2015), as denial only introduces a negative marker such as “no” or “not” to a perception, thought, or feeling, it is the least complex defensive mechanism (Cramer, 2015, p. 531).

Denial might become a problem if it impairs the mediating function of teaching, namely, that teachers mediate learners’ relationships to the learning object or learning activities. If denial disrupts either the relationship between teacher and learning object or the relationship between teacher and student, it consequently undermines the core relationship of teaching.

The relationship between teacher and student, which is understood in the narrower sense as the pedagogical relationship, can be impaired by distortions in perception regarding oneself, that of the student, and the relationship itself.

Regarding the self-and the student perception, an example is the evaluation of teaching by students. Based on a grounded theory approach, Schneider et al. (2024) conducted a study of how university teaching staff from a German university learn from negative feedback. The analysis resulted in a typology of four learning modes. University staff attribute negative student feedback to external, unchangeable structural factors in one of the four modes, the structure-oriented one, which forms the second predominant type. The perception of the individual that some aspects of internal experience, such as seeing oneself as an incompetent teacher, that may result from external reality, such as negative student feedback, are unacceptable can be considered denial. This “learning mode”, characterized by denial (Schneider et al., 2004) “results in a failure both to acknowledge one’s own role in the origins of a problem and to consider potential ways of handling the immediate problem, given the assertion that one has no such role” (Di Giuseppe & Perry, 2021, p. 4).

In terms of the student-teacher relationship itself, Reimer (2006, p. 286) exam-

ined the unconscious relationships between teachers and students among $n = 1231$ teacher candidates at all universities in North Rhine-Westphalia, Germany, offering preservice teacher education. The study found that more than 40% of the school memories written down by the preservice teachers were memories of cooperative relationship experiences, such as solidarity, recognition, affection, understanding, and achievement, and almost 60% were memories of non-cooperative experiences like isolation, rejection, avoidance, preference, oppression, challenge, humiliation, regulation, failure, relief, avoidance, and uncertainty (Reimer, 2006, p. 356). According to Reimer (2006, p. 363), this high percentage of non-cooperative experiences makes symbolization and cognitive reorganizations difficult and indicates the more or less conscious attitude that the unwilling students at school should be influenced (Reimer, 2006). Consequently, the suffering that the preservice students experienced during their school days can hardly be integrated into the self-concept of future in-service teachers, which could indicate that the preservice teachers are, among other things, denying it. This long-lasting denial may be automated (Reimer, 2006). “Die Ergebnisse der Untersuchung stehen aber auch in enger Affinität zur kollektiv verbreiteten Abwertung des Berufsstandes der Lehrer. (...) Es kann ... kaum übersehen werden, dass in einem derartigen kollektiven “Versagen” der Lehrer die Verdichtung von erlittenen Verletzungen in der Schulzeit virulent ist.” (Reimer, 2006, p. 386f.) (translation: K.S. The results of the study, however, are also closely related to the collectively perpetuated devaluation of the teaching profession. (...) It can hardly be overlooked that in such a collective “failure” of teachers, the accumulation of injuries suffered during school years is virulent.)

Regarding the relationship between the teacher and the learning object, the following interaction can be observed: Within the context of research-informed teaching of school teachers, the motivating idea behind these initiatives in the UK seems to be that, when research tells practitioners ‘what works,’ their teaching is based on research-informed practices and thereby becomes of better quality (Cain, 2016). As the head teachers at both schools aimed to improve provision for their gifted and talented (G&T) students, research about teaching gifted and talented students was presented to the teachers in the study (Cain, 2016). Cain (2016) conducted two empirical studies in English secondary schools about research-informed teaching guided through the research question “How can educational research impact on teachers and teaching?” (Cain, 2016, p. 11). The study revealed three reasons why teachers contest research evidence: within-research issues, issues around generalizing from research to practice, and non-congruence with personal values. According to Cain (2016), denial has a view of power relations inscribed into it, as it is assumed that research is empowered to dictate practice.

Refusing to acknowledge some aspect of external reality or of his or her experience that would be apparent to others can be found, for instance, in denial of science and in pseudoscientific beliefs. A study conducted with high school students

and teachers on their pseudoscientific beliefs in quantum mechanics showed that an endorsement of pseudoscientific beliefs in QM depends on the type of degree obtained, QM literacy, perceived usefulness of teaching QM, and confidence in teaching QM (Sciaretta et al., 2024).

According to the multicriteria approach adopted by Fasce and Picó (2019), pseudoscientific beliefs have their foundation in the three different but correlated belief systems: (a) magic or mysticism, (b) conspiracy theories, and (c) science denial. Science denial designates “a set of beliefs which ideologically, emotionally, or lucratively rejects well-established scientific theories.” (Sciaretta et al., 2024, p. 3). Fuertes-Prieto et al. (2020) demonstrated in a study conducted with 383 Spanish university students training to become school teachers that their level of belief in pseudoscientific issues is comparable, or in some cases even higher, to those of the normal population. This result was confirmed by other studies: For example, Es and Turgut (2018), Kallery (2001), Kaplan (2014), Keranto (2001), Metin and Ertepinar (2016), and Uçar and Sahin (2018) have shown that false beliefs and pseudoscience are present regularly among preservice and in-service teachers. Mugaloglu (2014) even stated that denial of science and pseudoscience in science classes is one of the problems of current scientific education (Mugaloglu, 2014).

To explore further the influence of all three of the defenses on teaching, the study will refer to the Personality Systems Interaction Theory (PSI-Theory). The PSI-Theory, founded by Kuhl (2001), focuses on explaining how different personal systems interact with the affects and cognitive processes. The PSI-Theory postulates the four macro-systems of personality:

- The object recognition system (OES),
- The intuitive behavior system (IVS),
- The intention memory (IG), and
- The experience memory (EG).

Kuhl (2001) considers OES and IVS elementary and IG and EG complex systems. OES has the function to recognize threatening objects based on the differentiation in data and assists in orienting in threatening situations. IVS helps individuals enjoy pleasurable states and initiates action by reacting spontaneously to external or internal stimuli, such as needs. IG processes information hierarchically and is important for goal-oriented action, planning, and implementing difficult and long-term intentions, as well as for volitional facilitation and self-control, while EG processes data holistically and helps store experience and express emotions. EG is fundamental for the sense of self, required for self-calming (Kuhl, 2001). In the analyzed defenses, a subject deems an original impulse or affect as unacceptable or threatening. According to how modulation dynamics of the personal systems work, anxiety triggered by the threatening impulse or affect inhibits access to EG, while facilitating access to OES (Kuhl, 2001). Strengthening the OES contributes to tunnel vision, and it will get into the vicious circle of strengthening it even more, while inhibiting the EG lowers the access to teaching experience and reduces the self-expression and self-calming of the teacher.

6. Conclusion

This study offers a perspective on teaching that integrates the disciplines of psychoanalysis and educational science. The results show that the evidence-based defenses of affect isolation, reaction formation, and denial affect teaching in several ways: They may result in problems, such as binary thinking, tunnel vision, moralism, and the pseudoscientific beliefs of the teacher. These defenses hinder the teacher's internal and external congruence, access to his teaching experience, his learning from negative student feedback, self-reflection, self-growth, self-expression, and self-calming. Additionally, these defenses may counteract the core-teaching goal of mediating validated knowledge and deny students' fundamental needs, such as attachment, affection, and support. The effects in turn influence the students' school experiences.

The study provides suggestions for didactic research. We propose expanding the didactic triangle, a fundamental conceptual model of teaching, to a dynamic network model with multi-relational links. Such a model consists of different clusters, each including many nodes, showing that they are part of a single interconnected relationship: 1) One cluster of this model, which simultaneously connects the three nodes—teacher, student, and learning object—represents the complex didactic system rather than just pairwise interactions within a triangle. Such a simultaneous relationship within this cluster, for instance, is the connection between the students' extent of needs for attachment, the teacher's extent of denial of these needs, and the students' extent of exploration of the learning object. 2) Additionally, our study shows that the link between cognition and emotion pertinent for both teacher and student suggests adding further clusters for both students and teachers with the nodes of cognition, emotion, and defenses in each. 3) The didactic triangle, which views the teacher-student relationship as a pedagogical relationship, sees the student as the pedagogical object. The pairwise thought link of the didactic triangle, however, denies the subject-subject constellation between teacher and student (Reimer, 2006). Following Reimer (2006, p. 385), the subject-object separation replaces the disavowed intersubjectivity. Intersubjectivity, however, sees psychological development as being embedded in a relational system consisting of at least two subjects. Similarly, Rogers (2000) demonstrated that the quality of a subject-subject relationship contributes significantly to personal development. Consequently, the model must differentiate the student-teacher relationship into two types, which include further nodes: the subject-object (pedagogical) relationship and the subject-subject relationship. The network model is illustrated for clusters and nodes obtained from our study. Generally, a dynamic network model enables teachers and researchers to gain a more comprehensive understanding of the interactions involved in teaching and to optimize it by accounting for multiple variables and relationships simultaneously.

This study also complements preservice and in-service teacher education with an extended teacher education architecture. The existence of evidence-based defense mechanisms in the classroom and their possible consequences demonstrate the

need to reform teacher education. Currently, teacher education emphasizes didactic and pedagogical competence, as well as expertise. However, this study suggests that teacher education should not only promote didactic and pedagogical competence and expertise but should also go along with personality development. Accordingly, we bring attention to the significance of an *educated ego* in teaching that obtains pleasure by acknowledging reality (Freud, 1976). For pre- and in-service teacher training, it is important to supplement the existing teacher education with the goal of promoting the personal development to become an educated ego through symbolizing. According to Reimer (2006), future teachers who did not symbolize their unconscious negative school experiences may struggle to understand the challenging conflicts in their relationships with students. Teachers' adverse school experiences in turn affect their capacity to symbolize these experiences and their self-concept as teachers (Reimer, 2006). This situation can lead to defensive behaviors. The negative experiences not only may affect the learning of students and themselves as teachers but also can perpetuate the vicious circle of teaching with defenses and ultimately contribute to a negative collective teacher image. Consequently, as an important result of this study, a key pillar of preservice and in-service teacher education should involve the symbolization of unconscious experiences as former students and (future) teachers. Through different reflective and creative sessions facilitated, for example, by psychoanalytic supervisors, these activities can incorporate techniques such as artistic expression and visual symbols (Rogers, 2022), storytelling with metaphors (Pennebaker, 2004), role-playing (Holmes, 1988), and going through the *Immunity to Change* (ITC) process (Kegan & Lahey, 2009).

According to the Global Framework of Professional Teaching Standards introduced by Education International and UNESCO (2019), the three domains of teaching are 1) Teaching Knowledge and Understanding, 2) Teaching Practice, and 3) Teaching Relations (Education International (EI) & UNESCO, 2019). While the first domain is related to the knowledge and understanding of teachers, the second refers to pedagogy, and the third pertains to professional relationships (Education International (EI) & UNESCO, 2019). The proposed educational reform of the current study would be realized within the Global Framework of Professional Teaching Standards by expanding this framework by a fourth domain of 4) Teaching, the Educated Teacher Ego.

The study contributes to an extended didactic research model and reforms in teacher education that address big pedagogical issues in schools, including students' non-cooperative school experiences (Reimer, 2006), by providing new theoretical explanations. Further research must empirically validate these theoretical considerations.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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