Freud's Views on Mental Causation*

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Abstract:

Freud held complex and fascinating views on the question of mental causation. In this chapter, I propose an interpretation on Freud's views on this question, bringing together ideas from psychoanalysis, philosophy of psychoanalysis and philosophy of mind. Faced with the impasse of the problem of how the mind interacts with the body, Freud created a two-dimensional picture of mental causation, with one dimension involving mechanistic causes and the other involving intentional causes. My thesis is that Freud's best-developed picture of mental causation thesis describes mental causes as intentional causes using psychological vocabulary. I analyze three moments in Freud's work with a focus on mental causation. In the first topography, Freud uses a hybrid vocabulary, describing the mind in terms of both mechanistic causes and intentional causes. In his second topography, the mind increasingly assumes an intentional description. The third moment is Freud's theory of anxiety, in which the arational cause of the unconscious drives, initially presented as a motor of the mind, gives rise to anxiety as an affective state that forces the self to find a solution for its mental conflicts. In the last part, I argue that Freud's theory gradually moves from a reductionist approach to the mind-body problem on which mental causation is understood in terms of physical mechanisms, to a non-reductionist view where the mental becomes causally efficacious in its own right.

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According to psychoanalysis, mental conflict divides the mind into conscious and unconscious parts. Mental conflicts are mental events composed of conflicting representations, or contradictory narratives that clash because of opposing demands in the subject's mind. Mental conflict causes the activation of defense mechanisms, such as repression (Laplanche & Pontalis 2002).

The notion of mental conflict has been present since the beginning of psychoanalysis, when Freud observed hysterical patients resisting pathogenic memories, and interpreted this resistance as a defense mechanism against irreconcilable representations. For mental conflict to play this role, there must be *mental causation*: a causal role for mental states in causing other mental states. Mental causation lies at the center of Freud's theory of the mind. He constructed numerous hypotheses about mental causation, with mental events playing a number of different roles in causing changes in mental states (Passos-Ferreira 2005, 2006, 2011).

Both assumptions – the division of the mind and mental causation –are relevant for explaining irrational acts and mental conflicts. Freud created a picture of human life in which our actions are caused by unconscious mental states. The Freudian theory of mind expanded the list of rational mental phenomena, identifying mental expressions such as phobias, Freudian slips and dreams as justifiable intentional acts. When explaining human behavior, he gave rational justifications the status of scientific explanations: they are causal explanations that allow for experimental control and prediction.

How can we reconcile mental causation with a scientific view of the world? Freud's starting point was that the mind is a mechanism whose functioning is determined by causes. He believed that a scientific theory of the mind should adopt causal determinism that is incompatible with chance. This determinism of the mind is grounded in the belief that all vital phenomena, including the mental, can be explained by a causal theory.

However, Freud's view of mental causation encounters theoretical challenges. Critics such as Ludwig Wittgenstein (1966; 1977) held that the causal role of mental phenomena is not mechanistic or deterministic, and is not subject to scientific laws. Faced with the impasse of the problem of how the mind interacts with the body, Freud created a two-dimensional picture of mental causality, with one dimension involving a mechanistic (arational) cause and the other involving an intentional cause.

To understand Freud's view of mental causation better, I will analyze three moments in his work. In his first topography, Freud uses a hybrid vocabulary, describing the mind in terms of both mechanistic causes and intentional causes. In his second topography, the mind increasingly assumes an intentional description. The third moment is Freud's revised theory of anxiety, in which the arational cause of the unconscious drives, initially presented as a motor of the mind, gives rise to anxiety as an affective state that forces the self to find a solution for its mental conflicts.

My central thesis is that over these three moments, Freud moves from a mechanistic to a more purely intentional picture of mental causation. Freud's ultimate view of mental causation, and the most coherent view that he develops, describes mental causes as intentional causes using psychological vocabulary.

1 Mental Causation and Causal Determinism

Wittgenstein criticized Freud's causal determinism by distinguishing between causes and reasons (Wittgenstein 1966, 1977; Bouveresse, 1991). He argued that mental events should be described in terms of reasons and justifications that don't obey causal laws. For Wittgenstein, it's a category mistake to equate motives and causes, because there isn't a causal explanation that respects the accidental and random aspect of human actions.

Underlying this criticism is the idea that it's not possible to find nomological laws that govern mental events. By treating psychoanalytical interpretations as scientific causal explanations, Freud seems to conflate two explanatory frameworks. The first framework affirms that "each mental event is caused." The second affirms that "each mental event is caused by laws." Stating that "a mental event is caused by another mental event" is not the same as stating that every cause or determination in the mental domain is subject to scientific generalization. Standard scientific explanations propose that "for every group of causes of type X, there occurs a group of effects of type Y." In psychoanalytical theory, however, this principle is not justified. While in some cases Freud seeks psychophysical and psychological laws that apply to the mind, in other instances he points to the unpredictable nature of cause and effect implied in the explanation of a mental event.

The accidental and unpredictable nature of mental events is compatible with the idea that mental events are caused, but it is hard to reconcile with the idea that mental events fall

under deterministic scientific laws. In the mental realm, causes are always unique. Each case is unique in its causal explanation and there is no *general type* that always obeys the same law of causality and that allows one to always predict the same effects. Instead, we might consider the generalizations of psychoanalysis – like the universality of the Oedipus complex – not as a deterministic and universal scientific theory, but as a hypothesis that works like a mythical cause offering a new repertoire for causal explanations to justify why we perform certain actions.

Psychoanalysis works with an explanatory model based on reasons that explain intentional actions motivated by the agent's beliefs and desires. This model separates psychoanalysis from the field of physical sciences that work with nomological causes, and defines it as a discipline in which reasons occupy an explanatory role. Historically, when opponents such as Adolf Gruinbaum (1984) criticized the scientific status of psychoanalysis, the reaction was to construe psychoanalysis as an extension of folk psychology, removing it from the realm of scientific theories. This approach can be found in psychoanalytic philosophers such as Richard Wollheim, Jonathan Lear, and Marcia Cavell. Cavell (1993), for example, argues that psychoanalysis is an interpretative discipline, in which interpretations play a causal role. For Cavell, the task of psychoanalysis is to build a metapsychology in which unconscious motives figure as the cause of the conflict and subsequently of the agent's actions. In opposition to this interpretative turn, neuropsychoanalysts, such as Mark Solms and Linda Brakel, have tried to resume Freud's naturalist project. They have argued that psychoanalysis intervenes in the mind at a physical level, and have defended a physicalist ontology of the mind in light of neuroscientific evidence about the dynamic biological unconscious (Brakel 2013) and neuroaffective consciousness (Solms 2013). The naturalist turn certainly brought a more updated and coherent view of the brain and neurophysiological processes. However, it has its own problems, in explaining the connections between physical events and mental events and subjective experiences.

In my view, the best way to understand Freud's project is adopting a nonreductive approach, such as Donald Davidson's anomalous monism, which claims that psychology cannot be reduced to physics, but nonetheless is grounded in a physical ontology.

Davidson's theory of anomalous monism is a classic defense of non-nomological mental causation (Davidson 1992, 1995). Davidson presumes an identity between physical and

mental events. The events can be described in either a physicalist or a mentalist vocabulary. In the physicalist description, the events allow for the formulation of laws that explain the causal interaction of events. In the psychological vocabulary there are no strict laws, but rather generalizations valid on a case by case basis. There are recurring patterns of cause and effect that apply to one individual and one event at a time. Even if the pattern repeats itself in similar cases, the uniqueness of each event prevents its interpretation as the occurrence of a strict law or general function, valid for all cases.

On Davidson's picture, the events conceptualized in the intentional vocabulary are not in themselves undetermined or unpredictable. On the contrary, the vocabulary of folk psychology is capable of producing generalizations with a reasonable predictive capacity, although it does not allow regimentation into laws. This is the causality of the anomalism of the mental. Psychological facts cannot be described by *type-type* relations but rather by *token-token* relations. For example, we can't say that "every person who is humiliated by someone else will react with rage, with hurt, with the desire to pay back the humiliation or with repression, depression or the desire to commit suicide." But, given a specific person X, we can say that when that person is humiliated she will typically respond with fear and the desire to cry.

According to Davidson (1995), reasons can be causes. The ordinary use of the notion of cause shows that there is a set of possible motives to justify an action, but only *one* is the actual cause of the action. The notion of intentional action already supports the idea that actions are caused by the agent's beliefs and desires. Every intentional action is something done by the agent to satisfy a desire, based on certain beliefs about the world, and about how to achieve the object of desire. What explains intentional actions is the agent's desire and a belief connecting the desire with the action to be explained.

One of Freud's challenges is explaining apparent irrational and aberrant actions using an intentional vocabulary. The intentional vocabulary is constrained by coherence and rationality; our motives to act are rationally connected to our actions. Freud's solution is to create a mental framework in which motivational structure has causal effects. As Davidson argues, the unconscious motivations proposed by Freud are causes that don't sustain a logical and rational connection to the action.

As Davidson points out (1982), for a mental event to cause another mental event without being a reason for it, cause and effect have to be properly separated as with the Humean notion of causality; cause and effect need to occur in different parts of the mind. The Freudian mind is divided into semi-autonomous structures, with non-logical relations between the parts, allowing us to explain how an unconscious desire can cause another thought or desire with which it maintains an arational relationship – acting as a mental cause that is not a reason for the mental state it causes. Each subdivision of the mind presents a set of beliefs, goals, and affects that characterize the events as intentional. These notions justify the mix that Freud makes of rational explanations with causal explanations in which reasons don't occupy the normal normative and rational role.

However, by describing mental phenomena in the vocabulary of causal laws, Freud creates a *hybrid theory* that oscillates between two analogies: the mechanical (a-rational), which involves an impersonal and scientific approach to the phenomenon, and the anthropomorphic, which is based on intentional explanations. On the one hand, the unconscious is an agent which behaves in mechanical ways; on the other hand, it is primarily cognitive and illogical, composed of desires and using language. The mechanical description removes the unconscious from the intentional realm in which reasons occupy an explicative role.

By affirming the causal role of reasons in human behavior, Freud is not denying physicalist explanations in terms of the nervous system. On the contrary, Freud's metapsychology is an attempt to find a solution to the mind-body problem. The mind-body problem is the problem of how mental processes correlate with brain processes. For Freud, unconscious mental events can have an effect on the brain and the body (e.g., conversion hysteria; compulsive actions) and on the mind (e.g., phobias; fantasies; dreams). Without neurophysiological processes, reasons could never be causes and have effects. As Solomon (1974) points out, neural functioning is the paradigm of Freud's work. But accepting underlying neural mechanisms does not entail replacing motivational explanations with non-motivational ones, because that would mean accepting that the mind can be reduced to neurophysiological processes – like Solomon's neurode – and giving up the psychological vocabulary of intentional actions, in which beliefs and desire take up a central causal role.

It's difficult to place Freud's conceptions within the vocabulary of mind-body theories, as this is a vast area that lends itself to numerous controversies and interpretations. As pointed out by Solomon (1974), Freud is a materialist with dualist tendencies. He advocates a psychophysical monism by trying to derive the theory of the mind from the neurophysiological theory, and, at the same time, rejecting the thesis of the identity between the physical and the mental, because the identity established is not between events, aspects or descriptions, but between the functions of the mental apparatus and the neurophysiological processes.

My question is how Freud relates mental causation to neurophysiological causation. One of his central contributions was formulating neurophysiological processes in an intentional vocabulary. Over his career, he moved from an emphasis on neurophysiological causation to an emphasis on intentional causation. Once we see how the various stages of his picture integrate both sorts of causation, we can better see how he preserves a picture in which we are intentional agents acting in a natural world.

2 The Hybrid Topography: between mechanism and intentionality

In formulating his first topography, Freud already has a causal theory of the mind, in which the notion of mental conflict is presented as a causal explanation for mental events. A conflict between antagonistic representations cause a defensive response and a psychological symptom. To this causal explanation, Freud adds his drive theory. The mental conflict is preceded by the instinctual conflict between opposing drives. From this idea, Freud creates a hybrid topography, where the different parts of the mind instantiate both levels of causes, describing the mind in terms of both arational causes and intentional causes. It is this hybrid topography and its problems that I discuss now.

In Freud's first theory of mind, the explanation of mental conflict is derived from the conjunction of the hypotheses of dual drives and of the mind as systems of representations (Freud 1915a, 1915b, 1915c). The mental apparatus consists of two opposing systems: the Unconscious and the Preconscious. The ego is identified with the Preconscious system, which is related to the functions of consciousness, censorship and the reality-testing. The ego is the defensive pole of the mind which examines representations and censors those which produce conflict. The conflict is described as the opposition to the Unconscious

and Preconscious systems, separated by repression: what is displeasure for the Preconscious is pleasure for the Unconscious.

Mental conflicts are fueled by a constant instinctual energy, coming from sources internal to the organism, which incites it to carry out actions to discharge the unpleasant excitation. In the first topography, drive dualism is expressed by two opposing drives: the drives of the ego (instincts of self-preservation), regulated by the principle of reality; and the sexual drives, regulated by the pleasure principle (Freud 1915a). The sexual representations and representations of the ego are animated by those opposing drives that seek to associate themselves with representations capable of promoting instinctual satisfaction. The drive hypothesis introduces a new link in the causal chain: symptoms are caused by a conflict between representations, which are representatives of the clash between drives that seek antagonistic satisfactions – self-preservation and sexual satisfaction. The intensity of the excitement causes unpleasant effects in the mental apparatus and creates a mental representation that serves to produce behaviors to satisfy the instinctual source.

In this first picture, the mental is reduced to neurophysiological processes, with causal patterns of physical and biological processes, associated with a system of representations with intentions and fantasies. The mind is conceived as a neural system with circulating energy through connected veins, whose function of censorship is carried out by a repressing mechanism. The ego functions as a neural mechanism that physically registers the increase of excitation. The overflow of instinctual energy provokes effects in the mind, at first felt and translated into alterations in someone's state of pleasure or displeasure. The drives are the psychosomatic intermediary required to explain how the energy of the biological body transforms into feelings, intentions, fantasies and actions.

With the concept of drive, Freud tries to solve one aspect of the mind-body interaction: how do unconscious mental events affect mental and physical states? In Freudian theory, the drives play two roles: it serves as an intermediary to connect the biological body and the mind; and as the force that explains the alterations of the machine. As Solomon (1974) shows, the notion of energy is paradigmatic to Freud's work and fulfills the *causal role* in the interaction between neuronal processes and psychological processes.

Freud's definition of drive preserves a residual Cartesian mind-body dualism (Flanagan, 1991), which requires third party intermediaries that connect two different ontological

realities, and promotes the alteration in a mental state. It is this theoretical void that the notion of drive fills. The mental apparatus is conceived as a mind connected to a body, whose functioning involves a constant interaction capable of producing effects both in the body and in the mind.

Both the drive artifice and the energetic mechanism that support it can be seen as an attempt to overcome Cartesian dualism. Freud tries to develop a spatial functional mental apparatus, avoiding localizationistic and reductionist neuroanatomical metaphors, in which the instinctual energy promotes the causal interaction between the mental and the neurophysiological processes. In the absence of a causal notion along the lines of Davidson (1992), Freud tries to appeal to two distinct explanations. He doesn't see them as descriptions of the same event, but as *two types* of events, a physical event and a mental event, that interact causally.

This results in a theoretical oscillation in Freud's explanation of the functioning of the mental apparatus, present since the *Project,* (Freud, 1895). On the one hand, the mental apparatus is a machine that executes functions, moved by energetic circuits, ruled by arational physical causality. On the other hand, the mind is an intentional system, in which motives from folk psychology are rational causes for alterations in mental states.

It is in the causal fluctuation – between rationality and physicality – that the ego is formulated as an intermediary between the internal and external world, with the task of avoiding displeasure. In *Repression* (Freud, 1915), the repressive structure functions as a censor of sexuality, reacting every time a possible sexual satisfaction becomes incompatible with the ego's survival demands. In the mechanistic description, the ego functions as a neural mechanism that is automatically activated, whenever the energy reaches elevated levels. It is a mechanism sensitive to energetic oscillations, capable to distinguish and avoid intense stimuli by recognizing the signs. The *neural-ego* reacts to syntactic similarities, with rules for identifying patterns, recognizing similar syntactic signs between events, reacting in the same way to event Y and event Z.

However, the arational explanation proves to be insufficient in explaining the pathological conditions found in the clinic. How can a mechanism like the neural-ego explain how a symptom can be caused by an incestuous fantasy? To solve the impasse, Freud connects his psychological account of the etiology of neurosis, which explains the mental causality

of the symptom, to his instinct theory, which explains the symptomatic origin, appealing to a physicalist vocabulary. He adapts concepts such as *repression* and *unconscious* to the vocabulary of instinctual energy. In order to sustain the hypothesis of conflicting mental systems resulting from the arational power of the instinctual energy, Freud adds representation to the drive. So unconscious fantasies represent sexual desires which reflect the instinctual sexual energy.

But how can a neural mechanism recognize the threat of displeasure in a sexual fantasy? How can the neural-ego repress a substitutive representation that was associated with a traumatic event? Freud created a mechanism capable of recognizing the energetic oscillation, not by using physicalist criteria, but by using semantic criteria – a semantic machinery. Attributing the capacity of semantic recognition to the machine is attributing beliefs and desires to the system. The neural- ego responds to syntactic similarities, but also to semantic similarities.

The ego is also described as a system of representations that makes complex evaluations in which it compares different representations, establishes relationships between recent and past representations, and anticipates future dangers. It is an *anticipatory system* that helps to predict future situations. The idea of an anticipatory system is central for the assumption of *rational agency* that defends itself from the conflict between the different parts. The rational agency evaluates both the conflict between its own autobiographical history and experiences, as well as the conflict between conflicting desires or representations. To avoid the displeasure of the conflict, one must have had a first experience classified as displeasure that serves as a criterion for evaluating new experiences and allows some sort of prediction, so the system can recognize the danger and avoid it. If the ego could not discriminate it, then it would always be like the first time. Conceiving a mind that classifies experiences by using semantic criteria is describing it as an intentional system – with beliefs and desires, with a rationality that motivates its behaviors.

In Freud's first view of repression, the maintenance of a hybrid grammar tends to dismiss beliefs and desires as part of causal history, weakening the notion of a *mental cause* and attributing arational causes as the origin of conflicts. The second topography puts more emphasis on psychological terminology and doesn't refer explicitly to neural interaction.

3 The Intentional Topography

In the articles after 1920, Freud reformulates his theory of the mind and redesigns its mental structures. Freud's second theory of mind (1923), the second topography, undoes the opposition between the Unconscious and the ego. The ego assumes the function of self-criticism, deducted from the unconscious feeling of guilt. If feelings of guilt are unconscious, then a part of the ego is unconscious. By attributing an unconscious property to the ego, Freud recovers the descriptive sense of the concept of unconscious and creates a new mental division: *id, ego and superego*.

In the new topography, Freud establishes links of approximation between the new and old mental structures. The id is classified as unconscious and it is attributed most of the characteristics of the Unconscious System. The organization of the ego is also described from its relation to the repressing agency of the first topography. This attempt to frame the second topography in the previous theoretical framework causes the new structures of the ego and the id, to present similar descriptive oscillation, at times mechanistic, at times intentional. If Freud maintains the mechanistic description, he would need to explain how the neural-ego recognizes certain representations, and is able to identify the meanings they carry. Once again, when faced with this problem, Freud changes his explanatory model, describing the ego as a system of representations, governed by rational causality. Throughout the text, Freud (1923) increasingly dispenses with the notion of neural-ego and focuses his arguments on an intentional conception of the ego. The causal ambiguity ends up being restricted to the id as a structure driven by excitations.

Mechanistic explanations are also insufficient to explain how unconscious feelings of guilt arise. Unconscious feelings of guilt can only arise in a mind with beliefs and desires that is capable of understanding the meaning of words such as authority, duty, social values. It is not possible to describe the superego as a mechanism nor the feeling of guilt as an energetic excitation. The superego is an intentional structure which, when in conflict with the ego, produces unconscious feelings of guilt. The second topography creates a system in which intentional causes rather than mechanistic causes do the most important work.

The mind is described as a superstructure of intentional systems driven by displaceable energy that functions as an engine for the mind. There is an instinctual tension between life and death instincts, configured by distinct energy circuits that aim to bind and disunity by principles of binding and destruction (Freud 1923). The drive tension causes a conflict between the structures of the mind. Mental conflict is also responsible for energy changes.

The a-rational causality is restricted to the energy alterations of the drives that inflame the excitatory process of the id. The id is defined both as a *reservoir of instinctual energy*, and as a collection of phylogenetically acquired contents, such as innate fantasies. Each innate fantasy structure works as an intentional system ruled by rational causality.

The ego is a collection of representations incorporated by perceptual experiences, responsible for censorship and control of the tendencies of the id, and affective control. For each newly incorporated representation, it occurs a rearrangement of the ego's configuration. The ego is sensitive to internal and external modifications caused by the body-environment interaction. From the conflict between the ego, the representative of the world, and the id, representative of the instincts, emerges the structure of the superego. Pressured by the instinctual sexual drive, the id invests in the first love objects. When becoming conscious of the id's sexual investments in the love object, the ego may try to repress them. By abandoning the sexual object, it occurs the "installation" of this object in the interior of the ego, which will constitute the *superego* – a set of identifications with the beloved renounced objects that form the ideal image of the ego. Once the superego is in place, some impulses of the id are repressed because they harm the ideal narcissistic image of the ego.

Despite partly functioning as an intentional system, the id is not a deliberative structure. If there is no deliberation, how do the desires of the id interact causally with the other structures? This can't be determined *a priori*. There is a contingent component: causal interactions, internal or external to the organism, which, depending on the circumstances, mobilize different aspects of the mind. Once the process has started, unconscious desires of the id behave as a mental cause that tend to produce effects on the ego and superego. The superego evaluates and decides if the desires of the id are pertinent to the beliefs and desires of the complex ego-superego. The moral demands of the superego function as a second-order principle, expressed in the dual aspect of the ideal: "we ought to be like" and "we ought not do". If the unconscious desire is contrary to these principles, the superego responds with criticism of the ego. The superego is the deliberative structure that approves or disapproves of possible actions of the ego, but is not capable to carry out the action. Any unconscious desire of the id that contradicts this second-order principle, the superego will censor. The censorship causes an effect that is felt by the ego as a feeling of guilt.

The ego interacts causally with the superego, the id and the external world. In situations in which the desires are in conflict, the ego evaluates the options for action and decides based on the principle of "avoiding annihilation of the ego", "avoiding the threat of castration". Any time an action involves a desire that threatens these principles, the ego will respond in a way to avoid the action. The ego creates defenses against the desires of the id and the attacks from the superego and the world. The ego, whether conscious or not, controls the movements of the body and deliberates about the execution of a voluntary act.

In the second topography, Freud develops an explanation where unconscious desires are the cause of mental events which can rationally explain the agent's actions, its bodily behaviors and symptoms. This is central to our conception of ourselves as agents. But the connection between physical processes and mental processes is still described by the hybrid theory: unconscious desires are expressions of instinctual drives that have causal powers as mind-body intermediaries. Next, I will discuss how Freud's notion of anxiety can help to explain the connection between physical processes and mental processes without these intermediaries.

4 Anxiety as a Mental Cause

The third movement is Freud's second theory of anxiety (Freud 1926). In my view, Freud's thesis that the affective state of anxiety alters the ego's will is closely related to the idea of anxiety as a mental cause that plays a causal role in the mental conflicts.

In Freud's first formulation, anxiety was the accumulated undischarged sexual excitation – understood as a pure physiological process without any psychological components. In this picture, anxiety is reduced to physical processes and it is not clear how it could cause any mental effect.

In the first topography (1915b, 1915c), anxiety is conceived as a discharge resulting from defensive mechanisms, or rather, as a quantitative effect caused automatically by repression – the automatic anxiety. The action of repression, by separating the affect from a pathogenic representation, resulted in an accumulated undischarged sexual excitation that was transformed into anxiety – a subjective manifestation of a quantity of energy that wasn't mastered mentally or physically. Anxiety is the transformation of an inhibited sexual

excitation (in Freud's terms libidinal instinctual impulses) in a psychological effect. In this picture, Freud's notion of anxiety seems compatible with a physicalist reductionist view of the mind, where psychological facts are described by *type-type relations*, generating psychophysical laws connecting the physical to the mental. That is, given a subject undergoing an event of repressing a desire, there will be always a transformation of the energy into anxiety. This reductionist idea raises at least two problems. First is the failure of determinism: repression of a desire does not always cause anxiety. Second the psychological state of anxiety seems to play no causal role; it is the inhibited energy that seems to be causally efficacious.

In Freud's revised theory of affect (Freud 1926), anxiety is conceived as a psychological reaction to situations of danger – anxiety is an affective state, an unpleasant feeling which is a signal of danger. In the revised notion, anxiety is a mental state with physical correlates. This affective state is accompanied by physical sensations connected to particular organs of the body: respiratory organs, heart and motor innervations (Freud 1926, 132). It is a state with "(1) a specific character of unpleasure, (2) acts of discharge and (3) perception of those acts" (Freud 1926, 133)

In the revised theory of anxiety, Freud reverses the causal mechanism of anxiety and introduces the notion of *signal anxiety*. The *signal anxiety* (anxiety as signal) is an affective state associated with memory – what Freud calls a *mnemonic symbol* (Freud 1926). The signal anxiety is the affect felt by the ego that evaluates situations of danger, and carries the intention of protecting the mind from the potential threat of suffering. It is a mental reaction of an intentional system, capable of evaluating situations based on its set of beliefs and desires. This implies classifying anxiety as a mental reaction – a signal – and no longer as a brute force that modifies mental states. Automatic anxiety, understood as the involuntary externalization of the accumulation of tension, works as a prototype experience for signal anxiety which is the mental cause of mental conflicts. The prototype experience Freud has in mind is the traumatic experience of "the primal anxiety of birth" when occurs the first separation of the newborn from the mother.

In the second topography, Freud limits the a-rational causality of quantitative factors, both to early states of the mind, as well as to situations in which the ego is exposed to causes with no associative connections to its set of beliefs and desires. Freud pictures the early stages of an organism as a stage of biological and mental *helplessness*, extremely dependent

on other people. Exposed to a situation in which tension increases, the ego responds with automatic anxiety – a state of intense excitement that results from situations that increase the circulating energy. The ego displays discriminative awareness, a sort of reflexive capacity to react with crying and innate bodily movements to any increase in excitement, caused by an inflow of excitations, from external or internal origins.

However, based on what criteria does the ego define a situation as potentially dangerous? Freud's hypothesis is that the initial *state of helplessness* in which the newborn infant finds itself is an original moment in which there is no ego narrative yet. In the early stages, the rudimentary ego passively experiences the first traumatic experiences of helplessness that leave a mark (a memory trait), to be used as a sign that identifies the threat of danger. With each new experience the ego reconfigures and expands its repertoire of situations identified as traumatic. The rudimentary ego functions as an intentional system of low complexity, which is in a constant state of reformulating and editing new experiences. With the emergence of the ability of conceptual thoughts, the ego acquires the pattern of rationality that is capable of anticipating, with increasing certainty and sophistication, the situations that present the threat of danger and it gradually develops as an intentional ego. The anticipatory capacity of the ego is ensured by the capacity of the reaction. When it identifies danger, the ego emits the signal of anxiety.

In my view, in creating the concept of signal anxiety as an affect in response to danger, Freud develops a completely intentional explanation for mental conflicts and makes the mechanism of the neural-ego dispensable. The maintenance of the notion of neural-ego is problematic because it proves insufficient to explain human behavior in the face of the sophistication that intentional topography offers us. We can conceive of an intentional ego that largely dispenses with the arational aspect of the concept of automatic anxiety. The intentional ego is an anticipatory system that reacts to any situation, dangerous or not, with some kind of affective state. On occasions when there is no danger, the ego reacts with joy or serenity. In situations that the ego recognizes a threat of danger, it reacts with the affective state of signal anxiety. In situations of effective danger, and there has been no warning sign, the ego is taken by surprise and reacts with fear, panic and dread, feelings typical of post-traumatic reactions. There are also situations in which the ego recognizes danger, triggers anxiety, which is followed by a failure of the ego defense, leading to an uninterrupted triggering of anxiety, causing outbreaks of despair and anxiety outbreaks.

Freud defines anxiety as an affective state of displeasure, which is characterized by its relationship with motor discharge. From an intentional point of view, a motor discharge is nothing more than a physicalist description of an intentional action. By defining anxiety as an affective state of the ego, Freud connects it to actions of the ego. The ego is responsible for controlling the processes of discharge and for executing intentional actions, and its affective states alter its deliberative processes and its intentional actions.

If the ego controls the access to movement and exercises its own will, how should one explain an ego that complains about the limitations in exercising its will? Freud relates the limitations to the bonds of dependency that the ego maintains with the external world, the id and the superego. The task of the ego is to orchestrate the heterogeneous interests so that these result in a single will. On the one hand, the ego is powerful and can exercise its will, because of its connections with the perceptive system and the external world. This forces the ego to submit the mental processes to the reality test. It's in the repression that the ego proves the power of its organization. Through the bonds that it maintains with the id, the ego transforms many desires of the id into identifications of the ego. On the other hand, the bonds weaken the ego and make it feel threatened by the possibility of a rupture or instability. The threats are experienced as situations of danger, to which the ego responds with anxiety. The anxiety interferes in the volitional function of the ego.

Before carrying out an unconscious desire, the ego evaluates if giving in to the desire will lead to the danger of castration. In case of a negative evaluation, the ego reacts with anxiety in order to repress the processes of the id. Anxiety is the cause, of which the defensive processes are the effect. But, how is this process associated with symptom formation?

The unconscious desire affected by repression functions as a cause of symptomatic formation. If the ego represses the unconscious desire there is no knowledge of anything. If the repression fails, the unconscious desire finds a disfigured substitute, whose destiny may be the symptom. The formation of the symptom impedes the threatening process of the id and eliminates the situation of danger. Suffering from anxiety, the ego can develop other defenses such as the splitting of the ego, denial of reality and changes in the character of the ego (e.g., reaction formations). Sometimes anxiety provokes the weakening of the will of the ego. The ego deliberates that it should behave like X, but as a result of the feeling of anxiety, it behaves like Y. Not always does anxiety provoke an akratic act. It may provoke a bodily change, such as conversive symptoms, or an alteration of the will, such

as compulsive actions. An intense and lasting anxiety is capable of changing the set of beliefs and desires of the ego, changing its deliberations and intentional choices. The ego doesn't act any more against "its best judgment", because it has changed its best judgment. This pattern of behavior can be identified in subjects whose symptomatic behavior doesn't cause any strangeness. They are ego-syntonic.

In Freud's theory of affect, anxiety is the mental cause which modifies the intentional actions of the ego. This role for anxiety offers a description of ourselves that includes the distinctiveness of the vocabulary of agency and of mind-body causation, dismissing third party intermediaries between the body and mind. At this point, Freud finally offers a fully intentional picture of mental causation.

5 Conclusions

The idea that the mind causes our behavior is crucial for our view of ourselves as agents. It is also at the heart of the mind-body problem. In my view, following Davidson, the best way to understand mental causation in Freud is by adopting a non-reductive physicalist approach.

This conclusion is supported by an analysis of the development of Freud's views of mental causation. I have reviewed three moments in Freud's theory of mind: the first topography, the second topography, and the revised theory of anxiety. I have argued that Freud's view gradually moves from a reductionist view of the mind-body problem on which mental causation is understood in terms of physical mechanisms, to a non-reductionist view where the mental becomes causally efficacious in its own right. In effect, Freud moves from a type-type relation between mental and physical processes (anxiety and compulsive actions, say) to a token-token relation. On this token-token picture, different people may respond to anxiety in entirely different ways. Psychological causation is not reduced to the deterministic process of physical causation. In this way Freud's picture makes room for a nonreductive picture of mental causation.

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