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Fluid and Crystallized Knowledge in Psychoanalytic Clinical Reasoning: The Relation Between Operators and Theory

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Psychoanalytic clinical reasoning is the inferential process by which analytic therapists are able to develop an understanding of the clinical material. According to a model that is widely held among both detractors and supporters of psychoanalysis, this process would consist in the application of psychoanalytic "theory" to the clinical material. In this article, we argue that this model, which entails a deductive view of clinical reasoning, does not reflect the reality of everyday clinical reasoning by competent analytic therapists and that the crux of the process rather consists in the mobilization of a set of families of conceptual and reflective functions, which we call the operators. We explain why operators are not "theory" in any of the senses in which this term is used in the relevant literature (public, private, or core theory) and propose to think of the relation between operators and theory as that between two different kinds of knowledge: fluid (i.e., implicit, procedural, formal) and crystallized (i.e., explicit, declarative, content-based) knowledge, respectively. In our model, while fluid knowledge is the one that is actually used to draw clinical inferences, crystallized knowledge is relied on as a frame that gives fluid clinical reasoning its context of justification.

Public Significance Statement
Psychoanalysts have often been criticized for using their theories as the proverbial hammers that turn every clinical situation into a nail. This criticism assumes that what analysts do, in everyday clinical practice, is indeed to apply "theories" to the clinical material presented to them by patients. However, the reality of clinical work shows another picture. Surprising as it may be, theory plays a relatively marginal role in psychoanalytic clinical reasoning. Rather, what analysts actually use to understand the clinical material are certain sets of mental acts, which we call the "operators." The operators represent a set of mental "tools" that, in contrast to the stereotypical hammer, are suitable to be flexibly applied to bring forth the uniqueness of clinical situations. In this article, we explore the relation between the operators and what is commonly referred to by the name of theory.

Keywords: knowledge, theory, clinical reasoning, psychoanalysis, case conceptualization

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continued

In this article, we are going to focus on psychoanalytic clinical reasoning (CR), which can be defined as the inferential process by which analytic therapists are able to develop an understanding of the clinical material. This focus of ours comes with two necessary limitations. The first is that, although CR is a central aspect of the analytic process, it constitutes by no means the whole of it. Analytic therapy, in fact, is not only about gaining insight or self-knowledge but also about (re)-living certain emotional experiences in the space offered by the analytic encounter and working them through (Freud, 1914). The second limitation is that although we focus here on the CR of therapists, therapists are not the only ones involved in developing an understanding of the clinical material. Not only because, as Jung (1961) noted, "the process of interpretation consists in the confrontation of two minds," the therapist's and the patient's (para. 497). But also because, from a clinical standpoint, "it makes very little difference" whether the therapist "understands or not, but it makes all the difference whether the patient understands" (Jung, 1934, para. 314).

Having said that, insofar as it is possible to say something meaningful about psychoanalytic CR while abstracting from the complexity of this "joint reflection" (para. 314), in this article, we shall address the question of how therapists, for their part, come to understand the clinical material. To answer this question, we are going to oppose two models: one, according to which the crux of the process consists in the application of psychoanalytic "theory" (or theories), and another, according to which the crux consists in the use of certain knowledge structures, called the "operators." As it will be explained in more detail below, the "operators" can be defined in short as *sets of mental acts* that analytic therapists implicitly but routinely carry out to bring forth meaning from the clinical material. "Theories," on the other hand, can be defined as *sets of propositions* that analytic therapists hold to be true or likely in most cases, or in most cases of a certain class.

The Theory Model

What we shall call "theory model" is a model of CR according to which analytic therapists would understand the clinical material by applying psychoanalytic theories to it. This model is widely held, first of all, among detractors of psychoanalysis. Let us take, for instance, Popper's (1962) classic critique of psychoanalysis. Popper used the example of "a man who pushes a child into the water with the intention of drowning it" or that of "a man who sacrifices his life in an attempt to save the child" and noted how both cases, albeit opposite, would be explainable by a Freudian therapist with the same theory: in the first case, by inferring that the man "suffered from repression (say, of some component of his Oedipus complex)," and in the second, by inferring that he "had achieved sublimation" (p. 35). Similarly, a therapist who was working within, say, an Adlerian theoretical framework may infer the existence of "feelings of inferiority" leading the man in the first case "to prove to himself that he dared to commit some crime" and the man in the second "to prove to himself that he dared to rescue the child" (p. 35). The model of CR that is implicit here is one in which analytic therapists understand the clinical material by applying *theories* to it—be it Freud's theory of the Oedipal complex, Adler's theory of the inferiority complex, or any other theory to which they may subscribe.

But the theory model is commonly held not only among detractors of psychoanalysis but also among many of its supporters. To use but one recent example, let us take the large-scale research project on the epistemological foundations of psychoanalysis that was coordinated by Riolo (2022) and funded by the International Psychoanalytic Association. Riolo explicitly compared analytic therapists to scientists using theories to explain observations: just as the "task of a scientific theory is to order a domain of observable phenomena on the basis of a principle of explanation," so "in our [clinical] work we make use on the one hand of certain theories and on the

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other of a quantity of experiences" that have to be "explained" (p. 7). Here, we come across the theory model again, but as it informs the understanding that analytic therapists have of what they *themselves* do. According to this self-understanding, what analytic therapists do is apply theories to explain observed phenomena. Under this model, only two realities exist, albeit "mutually supportive": "theories," on the one hand, and "observations," on the other (p. 8).

Public, Private, and Core Theory

The theory model is nonetheless made more complex by the fact that the term "theory" is used by different authors to mean different things. On the basis of the relevant literature, we can distinguish between three main senses in which the term is used: public, private, and core theory.

Public theories are systems of ideas that have been put forth by one or more authors, typically in the form of an academic publication, and accepted by the psychoanalytic community of reference. The main function of public theories is to explain aspects of the world (Stiles, 2015, p. 6) and can thus be classified on the basis of their *explanandum* (e.g., metapsychological theories, pathogenetic theories; see also Riolo, 2022, p. 14). Freud's theory of the Oedipal complex or Adler's theory of the inferiority complex, from Popper's examples, are classic illustrations of public theories. In fact, Canestri (2006) defined a public theory as a "formal theory" *in the Popperian sense* (p. 8). We can differentiate, then, between this technical sense of the term theory, corresponding to what Riolo (2022) also called "a *system of invariant relationships*" (p. 7, emphasis in original), and the commonsense use of the term, by which theory can mean any "ordering of facts made after the experience of the facts" (pp. 8–9). This distinction mirrors the one made also by Bion (1963) between "a theory as that term is employed to describe the systems used in rigorous scientific investigation" and the term "theory" as it is used "in conversational English" (p. 1). On the other hand, in the context of this article, the term "public theory" will be used in a way that also includes public *concepts*. The concepts of "Oedipus complex" or "inferiority complex," for instance, can be considered as fragments of public theories or as theories in condensed format.

Private theories are unofficial systems of ideas that, unlike public theories, are held and used implicitly. Sandler (1983) defined them as "partial theories, models or schemata" or preconscious "conceptual structures" (p. 38). In Sandler's use of the term, private theories can be either completely idiosyncratic, as "dimensions of meaning of a theoretical notion or term *within the mind of any individual psychoanalyst*" (p. 36, emphasis in the original), or specific to a community of therapists that understands or uses a public concept in a way that differs "from the public definition" (p. 38). Sandler's notion of private theories has been expanded by the Working Party on Theoretical Issues of the European Psychoanalytic Federation (Canestri, 2006), which lists as private theories also factors such as a therapist's political ideology, religion, cultural background, or scientific *Weltanschauung* (pp. 32–35). According to the proponents of the private theory model, the crux of everyday psychoanalytic CR would not consist in the use of public theories but of private ones. As Canestri (1999) suggested: "in most interventions we use private schemata rather than official theories" (p. 185).

Core theory is a term used by Fonagy (2006, p. 80) to refer to some fundamental assumptions that would be shared by all analytic therapists as such. The notion of core theory can be used to group together what other authors have referred to as a "minimal set of assumptions on which the psycho-analytic theory rests" (Rapaport & Gill, 1959, p. 153); "a certain number of basic postulates" (Ramzy, 1974, p. 545); "certain assumptions about how the mind works" (Messer & Wolitzky, 2007, p. 76); or psychoanalytic "axioms" (Riolo, 2022, p. 7). Freud, too, used the language of core theory in "An Outline of Psychoanalysis" (1940), insofar as he sought to outline the *Fundamentalen Annahmen* or *Grund-Voraussetzung* of psychoanalysis (see Riolo, 2022, p. 12). Each author gives their own list of "core assumptions," but examples include assumptions around psychic determinism or the idea of behavior as unconsciously motivated (Pine, 2006, p. 480). Fonagy suggested that psychoanalytic public theories develop out of core theory by "over-specification" (2006, p. 81), becoming indeed too *specified* to be shared by analytic therapists from all schools of thought.

Theory and Deduction

Especially in the case of public and core theory, the theory model carries with it a deductive view of psychoanalytic CR. In the case of public theories, CR is construed as a sort of syllogism in which a general theory appears as a major premise, an observation about a particular case appears as a minor premise, and the conclusion consists in the application of the theory to the case. Adapting from Mill (1843/2008, p. 240), we can formalize this inferential process as follows: (a) "A class of patients has a given attribute"; (b) "This patient resembles the class in certain other attributes"; (c) "Therefore, the patient resembles the class also in the given attribute." In the example used by Popper, for instance, the CR process would be: (a) "Certain patients who commit crimes do so out of feelings of inferiority to prove that they dare commit an extreme act"; (b) "This patient resembles that class of patients in that he committed a crime"; (c) "Therefore, the patient committed the crime out of feelings of inferiority to prove that he dared commit an extreme act."

Such an inferential process would not be a "deduction" in the narrow sense of formal logic, meaning an argument in which, if the premises are true, the conclusion must necessarily be true. In fact, as Mill (1843/2008) noted, the minor premise, by which a patient is judged to *resemble* a certain class, requires an "interpretation" of the major premise and therefore a mental act that makes the whole operation fall into the domain of "hermeneutics" and not strictly of logic (p. 230). However, such a process may be said to be deductive in the broader sense of a "top-down" reasoning that starts *from* the general (theory) and applies it *to* the particular (case).

But precisely because the whole process rests on a correct interpretation of the "marks" by which a particular case can be said to belong to a certain class (Mill, 1843/2008, p. 241), it follows that what a good theory should do, under this model, is to specify such marks *as clearly as possible* (for instance, by specifying *what* patients, committing *what* crimes, under *what* circumstances), which is what, according to Popper, psychoanalytic theories typically fail to do. Similarly, Riolo (2022) views psychoanalytic theory as ideally supposed to function as a "deductive system" (p. 7), from which univocal and unambiguous clinical hypotheses can be drawn. From which it follows that public theories should be made "sufficiently *identified and distinct* so as to make their confirmation or falsification possible by means of observations" (p. 191, emphasis in original). The use of Popper's keyword ("falsification") confirms that we are moving within the same model.

In the case of core theory, the deductive view of CR is even clearer, insofar as case-level inferences are explicitly seen as "descending" from first principles:

> [Scientific theories are] based on certain propositions of a very general character … employed as premises from which lower-level hypotheses (inferences) are derived; these in turn function as second-level axioms, from which subsequent inferences are derived. The axiomatic method is therefore *descending*. (Riolo, 2022, p. 7, emphasis added)

On the model of geometry, the idea is that if one were to follow the inferential process *backward*, one would arrive to "a certain number of indemonstrable axioms" that are "presupposed to be correct" and thus "assumed a priori" (p. 7).

The deductive view of CR that is associated with the theory model exposes psychoanalysis to a number of criticisms that could be avoided if only analytic therapists were to base the understanding of their own practice on a different model. For instance, Michael (2019) revisited Grünbaum's argument that Freud's clinical inferences are logically fallacious by reconstructing Freud's CR on a specific case. In doing so, he was able to show how Grünbaum "misunderstands Freud's reasoning," insofar as he judges it by the "measure" of "deductive reasoning" (pp. 231–232) and "interprets Freud as making deductive inferences" (p. 235). Instead, Freud's reasoning can be shown to be perfectly plausible if only it is looked at as a nondeductive form of CR. However, we further suggest that a better model of psychoanalytic CR might be one that abandons not only *deduction*, as the form of reasoning through which the CR process is supposed to be carried out, but also *theory*, as the kind of knowledge that, through deduction, is supposed to be applied.

The Operators Model

Recently, we have proposed a model of psychoanalytic CR alternative to the theory model, called the "operators model" (Polipo, Willemsen, & Kallai, 2024). The operators model was based on an exploratory study of the CR process by competent analytic therapists. We recruited a group of senior

supervisors from a variety of analytic schools of thought (e.g., Freudian, Lacanian, Jungian) with an average of 27 years of clinical experience and asked them to record a session with one of their supervisees. Then, we organized a retrospective online interview in which the recording of the session was played back in its entirety, and the supervisor was invited to make explicit the CR process that they had gone through at the time of the session while they were listening to and processing the clinical material. This exploratory study led us to observe that participants did not really understand the clinical material by applying "theories" to it. Rather, they seemed to do so by executing a series of implicit but recurrent mental acts.

This made us interested in spelling out the different mental acts that were executed, and to that purpose, we turned to Bion's theory of functions. Building on Bion (1962), we defined a "function" as a mental act carried out by an analytic therapist to advance their understanding of the clinical material, *minus* the content coming from the particular case at hand. To illustrate, let us take a supervision session in which the therapist (T) was reporting the case of a patient (P) with difficulties socializing. One day, P decided to get out of the house and study at the university, only to find that a problem with the library's server made it impossible for him to work from there. At this point, the supervisor (S) carried out a mental act by inferring that the problem might have laid also with P's "internal server," which was overloaded with social stimuli. In this case, the underlying function can be spelt out as the mental act of *interpreting an external element* ("library's server") *as the representation of an internal one* ("internal server"). Functions represent the "empty" form of a mental act. When this form is "filled" with a particular element from the clinical material, we say that a function has given rise to an *operation*.

Finally, we noticed that some functions revolved around the same core idea. For instance, the function from the example was eventually grouped with others that revolved around the core idea of "metaphors" (cf. Table 1). In this way, we were able to identify a finite set of *families of functions* that appeared to be used by competent analytic therapists regardless of their school of thought and regardless of the content coming from the particular case at hand. These families of functions are what we call the "operators." In our study, in particular, we identified a total of twelve operators. However, six of them appear to be prevalently used for *conceptual* purposes (to select, link, or transform elements of the clinical material), while the other six appear to be prevalently used for *reflective* purposes (to adopt and maintain the right "position" or "posture" in the CR process). In this article, to simplify the

Table 1
The Six Conceptual Operators, Their Core Ideas, and Examples of Functions Within Each Family

Operator	Core idea	Example of function in each family
Dialectical	Opposites	• Noticing the conversion of an element of the clinical material into its opposite • Taking an element of the clinical material and turning it into its opposite • Positing that one thing and its opposite are true at the same time
Symbolic	Metaphors	• Interpreting a literal element of the clinical material in a figurative way • Interpreting an external element as the representation of an internal one • Attending to the metaphors that are appearing in the clinical material
Formal	Patterns	• Noticing the recurrence of an element in the clinical material • Extracting a commonality between two seemingly unrelated elements • Noticing the temporal contiguity between two seemingly unrelated events
Investigative	Clues	• Attending to elements that are out of the ordinary (by excess or deficiency) • Attending to minor details that might accidentally reveal a "hidden truth" • Interpreting an element as a distraction for what is "really" going on
Genealogical	Origins	• Interpreting a present element as the reactivation of a past one • Tracing an element back to the place or time whence it originated • Attending to the first element in a series as the most important one
Dynamic	Forces	• Attending to where a person's general investment or interest lies • Attending to emotionally charged elements of the clinical material • Hypothesizing some motive force underlying a particular behavior

Note. Table reproduced from "Developing Psychoanalytic Case Conceptualization Skills Through Didactic Teaching: A Randomized Controlled Trial," by N. F. Polipo, J. Willemsen, M. Hustinx, and A. Bazan, 2024, *Psychotherapy Research*, *34*(3), p. 384 (https://doi.org/10.1080/10503307.2023.2241623). Copyright 2024 by Taylor & Francis. Reprinted with permission.

discussion, we are going to focus only on the six conceptual operators. Table 1 reports their core ideas and a nonexhaustive list of functions within each family.

According to the operators model, the crux of everyday psychoanalytic CR does not consist in the application of "theory" to the clinical material but in the *chaining of operations using functions from different operators*. To illustrate, let us come back to the example above. P, an adolescent boy, was being seen by T, a young woman. In the course of the supervision session, while listening to and processing the clinical material provided by T, S was able not only to make single operations, such as the one about P's internal server, but also to weave them into an *overall hypothesis* about what was happening with that case. In particular, S's hypothesis was that an unidentified erotic (counter)-transference was developing between P and T. But how did S arrive at this hypothesis? By carrying out a series of operations using functions from different families, such as *noticing a pattern by which T was going out of her way to help P* (for instance, offering to accompany P to the library; Formal operator); *noticing that whenever T talked about P, she got visibly animated* (Dynamic operator); *contrasting that with T's unusual insistence that sessions with P were "boring"* (Investigative operator); and ultimately *turning T's proposition* ("sessions are boring") *into its opposite* ("sessions are exciting"; Dialectical operator).

Theory Versus Operators

Several findings from our empirical study run counter to the theory model. (a) *Commonality*. The operators were found to be used by participants who came from a variety of analytic schools of thought and subscribed to different public theories. (b) *Language*. During both the supervision session and the interview, participants rarely used a theory-laden language but rather expressed their inferences in an experience-near and jargon-free language that remained at the level of the case. (c) *Form of reasoning*. As illustrated by S's overall hypothesis, everyday CR by competent analytic therapists is best described not as a form of deduction but rather of *induction*, where the term is to be intended again not in the narrow logical sense (as a logically defeasible process of generalization from a number of observations) but in the broader sense of an inferential process that works "bottom up" *from* the elements of the clinical material *to* a hypothesis that may fit them. To be even more precise, it has been suggested that psychoanalytic CR would be best described in terms of "abduction" (Kettner, 1991; Michael, 2019). This form of reasoning differs from both deduction and induction in their narrow logical sense and consists of an inference that goes from a set of surprising facts to a hypothesis that, if it were true, would make such facts "a matter of course" (Peirce, 1998, p. 231). However, while the process by which S arrived at his overall hypothesis may be described in terms of abduction, the same cannot be said of his single operation about the internal server. Such an inference, strictly speaking, does not conform to any of the forms of reasoning contemplated in formal logic and may be better understood in the context of so-called "informal logic" (Ahumada, 2006, p. 138). (d) *Modularity*. The complexity of an instance of CR appears to be directly proportional to the number of operations that underpin it. While a simple instance of CR, such as S's inference about the internal server, can be shown to be underpinned by a single operation, and a more articulated interpretation to be underpinned by two or more operations, an overall hypothesis, as the one illustrated above, is typically underpinned by a chain of operations using functions from most or all of the operators. This "modular" dimension of CR is hard to explain within a model in which a monolithic entity, such as a theory, is applied, while it makes sense in light of the idea that CR consists of a series of discrete mental acts (the operations). (e) *Time-boundedness*. S did not arrive at his overall hypothesis until the end of the session with T and continued to develop it even during the retrospective interview. The fact that hypotheses do not jump full-grown out of the therapist's forehead but take time to develop and are in fact "given birth to," to use the words of another supervisor from our sample, is another aspect that is not consistent with the idea that the CR process would consist in the application of a theory. This gestation period, on the other hand, is consistent with the idea of a gradual application of operators onto the clinical material as it unfolds in the time-to-time flow of the sessions, in a way that may lead in time to larger abductive processes. (f) *Purpose*. The theory model implicitly suggests that the purpose of CR would be *explaining* the clinical material, as per Riolo's (2022) analogy between analytic therapists and natural scientists. However, the example about

the internal server makes it clear that S did not offer such an inference so much to "explain" P's experience but to *make sense* of it so that P may have been able to integrate it. If P goes to the library and finds that he cannot work from there, that is just a raw or brute fact, something that happened to him—in Bion's terms, a "beta-element." But if P can bring meaning out of his experience, he can turn it into a digestible (alpha) element. According to our model, and in line with Bion (1962), the purpose of CR is thus not to explain experience but to develop a capacity to *learn* from it.

Why Operators Are Not Theory

It is important to explain why the operators are not "theory" in any of the senses outlined above. The simplest difference to establish is the one between operators and public theory. Operators are not public theories because public theories are what identify each analytic school of thought and differentiate it from the others. As such, public theories are a well-known cause of division among analytic therapists, as Freudians do not subscribe to the same theories as Jungians, nor Klenians to those of Anna Freudians, and so on. In contrast, in our study, the operators were found to be commonly used by analytic therapists from different schools of thought.

However, operators are not private theory either. For although they too are used implicitly, they are not "private" either in the sense of being specific to a particular community of therapists or, even less, of being completely idiosyncratic. On the contrary, as noted, operators are *shared* by analytic therapists. Moreover, another key difference is that the notion of operators is intended to describe what makes the process of psychoanalytic CR *such*. In contrast, as long as factors such as political ideology or religion are listed as private theories, then it is not clear whether these are the forms of knowledge *thanks to which* analytic therapists are able to develop an understanding of the clinical material or those *despite which* they may be said to be able to do so. To use an analogy, if our task was to understand the process by which competent golfers are able to put a ball in the hole, then our model should describe the skills that they are able to mobilize (e.g., grip, swing) and not list all the factors that may adversely influence the trajectory of the hit (e.g., wind, rain). Similarly, what should enter a model of CR is not a list of the infinitely varied ways in which a therapist may be prejudiced but, at most, a description of the reflective skills they should be able to mobilize to correct for those disturbing influences. As Jung (1961) noted, the "analyst's mind is characterized by a number of individual peculiarities" that "have the effect of prejudices" (para. 497); but "if you want to understand" the clinical material, then "you have to sacrifice your own predilections and suppress your prejudices" (para. 505).

This criticism to the private theory model is also linked to the fact that, insofar as some of the system of ideas listed as private theories can be completely idiosyncratic, then it is questionable whether they deserve the name of "theory." As Stiles (2015) notes, theories "must be distinguished from the epistemologically private ideas the theories express or convey," for theories "are public," "unlike their meanings" (p. 7). In light of the inherently public dimension of theories, something like a private theory sounds almost like an oxymoron. As suggested by Dreher (2000), it may be preferable then to talk instead, and more generally, of "implicit knowledge" (p. 169), a term under which both the operators and private theories could be subsumed. For instance, the use of "metaphors" (Canestri, 2006, p. 33), which the Working Party on Theoretical Issues also lists as a factor characteristic of the preconscious work of analytic therapists, can be seen to join the Symbolic operator in our model.

Finally, operators are not core theory either. For functions are not statements or propositions *on the basis of which* inferences are drawn but are themselves the mental acts *through which* inferences are drawn. This reflects in the fact that functions are not expressed through the static language of geometrical axioms or postulates but through what may be called an "action language" (e.g., "extract-*ing*," "trac-*ing*"; cf. Table 1). Operators-driven inferences may thus be said to *rest on* core theory but not coincide with it. As Kettner (1991) also notes, a distinction has to be made between the "background assumptions" *against which* the inferential process takes place and the "explanatory resources" *through which* inferences are drawn: "Such assumptions … are not themselves formal principles" (pp. 165–166). To illustrate, let us take again S's inference about the internal server. It is clear that such an inference was drawn against the background of some theoretical assumptions—say, the assumption that human behavior is overdetermined. But such generic assumptions happen to underlie *most*

clinical inferences in psychoanalytic CR and are thus insufficient to account for their variability. If, in each case, a therapist had only such assumptions to rely on—as suggested, for instance, by Ramzy (1974), who thinks that they may be "all that psychoanalysis employs in exploring the mental life of man" (p. 546)—then *in virtue of what* would they be drawing the inferences? If we do not admit the intervening role of a domain-specific knowledge between core theory and a particular inference (such as the operators), then we are forced back to a model in which that *through which* inferences are drawn are merely "formal logical principles" (Kettner, 1991, p. 166), such as deduction. But an inference so specific as the one about the internal server, for instance, could not possibly have been deduced by S moving only from a generic assumption about psychic overdetermination, on the one hand, and the available information about P's visit to the library, on the other. If anything, as Kettner (1991) suggests, background assumptions intervene to impose a certain order of "plausibility" on the "infinite space of logically possible explanations" (p. 165) or, shall we say, ways of learning from experience—for example, by funneling the use of those explanatory resources to the application of a particular operator to a particular element of the clinical material. Where, for the application of the operators not in single operations but in chains that may give rise to larger abductive processes, not only core theory may work in such a way but also general criteria for the evaluation of hypotheses, such as simplicity, coherence, or breadth (see also Michael, 2019, p. 234).

To illustrate in another way the distinction between *drawing* an operator-driven inference and *relying* on a core assumption, let us take the Genealogical operator. A function in this family is a mental act by which the "origin" is taken to be that which holds the key to the rest of a process (Table 1). A classic way in which this function is used by analytic therapists is by attaching a lot of importance to childhood (as the "origin" of human life). And in using the function in this way, analytic therapists may be said to rely on a core assumption about how the mind works: namely, "the idea of the crucial developmental impact of early … experience, having some continuity over time" (Pine, 2006, p. 481). However, the same function is commonly applied by analytic therapists also to other contents: for instance, in inferring that the first session contains what is important about the rest of a therapy, or the way in which a patient starts a session contains the key to the rest of the hour. These three examples are all applications of the same function from the same operator. But the last two do not rest on the same core assumption on which the first may be said to be based. Nor can one multiply assumptions *sine necessitate*—for instance, by postulating the existence in core theory of an assumption about the first session, another about the beginning of a session, and so on—for, according to the law of parsimony, there would be a simpler way of explaining the similarity between these inferences: namely, the postulation of a single, Genealogical operator. And yet, at the same time, as per Kettner's (1991) suggestion, the role of core assumptions may be said to be that of filtering out certain uses of the Genealogical operator, which would not *make sense* in light of what is known about how the mind works (e.g., an evidently absurd inference, such as that "the first word in each sentence is the most important").

To summarize all of the above, let us consider the example used by Bion (1963):

> Suppose that a patient is angry. More meaning is given to a statement to that effect if it is added that his anger is like that of a "child that wanted to hit his nanny because he has been told he is naughty." The statement in quotation marks *is not an expression of a theory. … It must not be supposed to express a theory* that small boys hit their nannies if they are called naughty. (p. 12, emphasis added)

The inference considered here by Bion could be operationalized in various ways according to our model, depending on whether one chooses to see it as the mental act of establishing an analogy between the way in which the patient is angry and a child can be (Formal operator), the act of producing a metaphor to describe the patient's state of mind (Symbolic operator), or the act of bringing the patient's anger back to its earliest possible version (Genealogical operator). But however one chooses to operationalize this inference, no "theory" was used here. And yet, as Bion continued to note, "statements of this kind," which are neither "statements of observed fact" nor "formulations of a theory," are not only typical of everyday analytic work, but they are required "as part of analytical scientific procedure and equipment" (p. 12). Most instances of psychoanalytic CR mobilize this kind of knowledge that is not theory and which has been overlooked so far, although hidden in plain sight. We may say, somewhat provocatively, that operators are *the most common but least talked*

about kind of knowledge in everyday CR, while theory is *the most talked about but least common*.

Fluid and Crystallized Knowledge

Of the three senses in which the term "theory" is used, *public theory* is the most common. In the second part of this article, then, we wish to articulate more specifically the relation between operators and public theories. To do so, we propose to draw from the distinction between fluid and crystallized abilities that was proposed by Cattell (1943) in the context of the study of intelligence. In Cattell's definition, fluid ability "has the character of a purely general ability to discriminate and perceive relations between any fundamentals, new or old," while crystallized ability "consists of discriminatory habits long established in a particular field" but "no longer requiring insightful perception for their successful operation" (p. 178). Although Cattell's distinction concerned two kinds of intelligence, we wish to apply it here to two kinds of *knowledge* that would be mobilized by analytic therapists in their CR. Crystallized knowledge can be defined as the knowledge of the conclusions that have been previously reached on cases comparable to the one at hand and which the therapist is able to retrieve from memory and introduce in their CR process. Fluid knowledge can be defined as the knowledge of the reasoning abilities that the therapist is able to apply afresh to the clinical material and in a tailored combination of operations, thus arriving at conclusions that may or may not conform to their crystallized knowledge. We suggest that the knowledge of public theories is an example of crystallized knowledge and that of the operators is an example of fluid knowledge. The mobilization of the first kind of knowledge may be called, for short, crystallized CR; that of the latter, fluid CR.

To illustrate the difference between these two forms of CR, let us use an example. Wolitzky (2007) discussed the CR process of a Freudian therapist who, on the basis of a series of patient communications, extracted "the repetitive theme of feeling trapped and stuck" (p. 32). He commented that the extraction of this theme is a "fairly low level of inference" (p. 32), which, not being tied to any specific theory, could be carried out by analytic therapists from other schools of thought. Then, he contrasted this inference to another one, by which the Freudian therapist goes on to hypothesize that, "underlying the patient's claustrophobic anxieties," there would lie an unconscious "fantasy of *vagina dentata*" (p. 31). Wolitzky noted that this inference is more "theory-driven" (p. 31) and less close to the clinical material. Also, being dependent more specifically on a Freudian theoretical framework, it is not as likely to be drawn by therapists from other schools of thought.

We may say that the first inference is an example of fluid CR, as it mobilizes the knowledge of operators (in this case, the Formal operator), while the second inference is an example of crystallized CR, as it mobilizes the knowledge of a particular public theory (the theory of the vagina dentata). The inferences drawn through these two forms of CR differ in various respects. The first works bottom–up or inductively, leaves room for other inferences to be "stacked" on top of it, and is expressed through a natural language that remains close to the clinical material. The second works top–down or deductively, quickly saturates the understanding of the clinical material, and is expressed through jargon. The first can be compared to the development by a programmer of a new piece of code from scratch; the latter to the insertion of a snippet of ready-made, reusable code.

But our suggestion is that the differences between these two inferences are explained by the fact that the *very kind of knowledge* on which they are based is not the same. Having knowledge of a theory, such as the theory of the vagina dentata, means being familiar with a particular "apparatus of statements" (Riolo, 2022, p. 175) that one is able to retrieve from memory and express in propositional form. Since a theory comes with its own content, then when the theory is inserted in one's CR, its content gets "transferred" to the inference. The idea of the "vagina dentata," for instance, did not come from the clinical material but was preexisting; that is, it was brought over by the theory itself. Crystallized knowledge may thus be characterized as a form of *explicit, declarative,* and *content-based* knowledge. In contrast, fluid knowledge is *implicit, procedural,* and *formal*. Having knowledge of the operators does not mean so much knowing something but *how to* do something (e.g., how to think dialectically).[1] It means possessing certain *skills* that are difficult to be verbalized and are better demonstrated in action. These skills, what is more, do not have a

[1] On the other hand, knowing *how to* apply a theory (i.e., intelligently relate its "marks" to the elements of the clinical material) is a process that would still require some kinds of procedural knowledge.

content of their own but are "empty" thought-forms. When the Formal operator was applied to the clinical material, for instance, a particular theme was extracted ("feeling trapped and stuck"). But the content of this theme did not come from the operator, nor was it preexisting in the therapist's mind. Rather, it was generated anew from the application of the operator to the material.

Having characterized operators and public theories as two different kinds of knowledge, it remains to be clarified what role each of them has in everyday CR. Now, as the example from Wolitzky (2007) shows, in principle both fluid and crystallized knowledge can be used as *knowledge bases through which clinical inferences are drawn*. However, we suggest that, in everyday CR by competent analytic therapists, fluid knowledge is the one that is mostly used for this purpose. In our study, high-level inferences such as the one about the vagina dentata were rarely drawn by the supervisors. If anything, the supervisees (who, in our study, were on average less experienced analytic therapists) were more likely to occasionally draw this kind of inference—besides, only to be invited by their supervisors to "fly lower," that is, to remain closer to the clinical material.

But if fluid knowledge is the one that is mostly used to draw inferences by competent analytic therapists in everyday CR, then *what is crystallized knowledge for*? In the remainder of this article, we wish to argue that crystallized knowledge does have an important role in CR, simply not as a basis to draw inferences but as a "frame" to support fluid CR.

Theory as Frame

To illustrate, let us return to the case of the S who formulated the inference about P's internal server. During the interview, after listening to a sequence in which T had been describing the sessions with P, S stopped the recording and explained that he remembered having noted something at that time in the supervision session. What S had noted was a transformation from a scenario that had been painted by T, and in which "nothing happened" in the sessions with P, to other scenarios in which "very strong emotions" were actually playing out between them. S explained that picking up on this kind of transformation requires being sensitive to "very subtle aspects, sometimes very difficult to spot." For S, part of his job is to focus precisely on these aspects that "are not directly related to the content of what is being told." It is about focusing on "spotting these little transformational aspects—more than on the content of what is told or described in the session."

In this fragment, S's CR process can be described as relying on several operators, including the Dialectical (noticing the transformation of a scenario into another one with opposite qualities), Investigative (focusing on the "subtle/difficult-to-spot" aspects that can reveal a hidden truth), Formal (noticing the commonality between a number of scenarios with shared features), and Dynamic operator (focusing on the presence or lack of emotions in T's retelling of the case). However, since this fluid knowledge was acting implicitly in his CR, S did not acknowledge it. Rather, to explain his CR process, he referenced some theoretical notions. In particular, S noted that the sequence lent itself to be understood in terms of the concepts of "psychic scene" by A. Ferro and "transformation" by C. Bollas.[2] At this point, however, the interviewer asked S, "But these theoretical ideas (the idea of scene, of transformation), did you have them in mind *at that time*, [while you were] listening to T?." To which S laughed and responded:

> Good question. So, um. yes and no. … [I am very fascinated by] this question of how … the training (including the theoretical training) of the therapist, but certainly also of the supervisor… um, creates a kind of background scenery [*décor d'arrière-fond*], if you like, which is both there and not there.

To explain what he meant, S offered a metaphor. He told the interviewer, who at that time was sharing his screen on Zoom, that in the brief moment when he had started the application to play the recording of the session, S had noticed that, as a desktop background of his computer, the interviewer had the image of an Italian city:

> That's exactly it: that is to say, how this image in the background is there without being there. Well, you don't spend your time in front of your computer thinking about [that image]. … But at the same time it's there, you see? And so I think that the theories that drive us are a bit like that, it's a sort of background. … I'm not sure

[2] S invokes two different concepts, as if to suggest that he would have *combined* them in drawing the inference. But while the idea of combination is central to the operators model (where functions from different families are chained), the same idea is problematic for the theory model, where theories are to be kept *as distinct as possible* (Riolo, 2022).

> that I was conscious of really thinking about Bion, Ferro, Bollas or I don't know what; no, probably not really. But T could have asked me "well, what made you say that?" or "how do you theorize it?," and I would have been able to tell her right away.

Just as the desktop is the platform or surface on or against which, and not through which, we carry out the daily operations on our PC, so our crystallized knowledge of public theories can be seen as the frame upon which our operators-driven inferences take place, rather than that through which they are carried out. This important difference gets obscured by the fact that, when analytic therapists are asked to explain their CR process, they *retrospectively* refer to "theory," as S did in this example. This is presumably due to the fact that theory (unlike operators) is an explicit kind of knowledge, which is thus easier to retrieve. But while it may be easier for analytic therapists to retrieve from their memory bits of crystallized knowledge, this does not mean that it is through those bits that they actually carried out the CR process. To put it with Mill (1843/2008), S did not arrive at his hypothesis through "the 'high priori road'" of theory (p. 222). Ferro and Bollas may have been in the back of S's mind, but not as premises in a syllogism. The only "object" occupying his mind, at that time, was probably *neither theory* (present only as a frame) *nor operators* (relied upon implicitly), but rather the *concrete elements of the clinical material*, including S's inner movements. And yet, S cannot be said to have been guided by the clinical material alone, for the clinical material contains no indications as to how it wants to be organized. Analytic therapists struggle to bring the operators of their CR into view insofar as these constitute the a priori *knowledge structures* by which they habitually bring meaning out of the clinical material.[3]

The Loom Analogy

Our idea that theory works in everyday CR primarily as a frame echoes Ahumada's (2006) suggestion that psychoanalytic theories consist primarily of "frame-theories," which are theories that "do not sustain strict deduction" but "serve as general settings for thought" and correspond "to the explicit parts of our ever-present background knowledge" (p. 140). However, what remains to be clarified is *in what way*, exactly, would theory be supporting fluid CR as a frame.

We suggest that the kind of support that is offered by the crystallized knowledge of public theories in the CR process can be likened to that which is offered by the nails in a loom in the process of weaving a thread. Public theories are neither the thread that is being weaved (the clinical material) nor the needles or other instruments through which the weaving is being carried out (the operators), but rather the nails that are distributed along the loom and constitute its *frame*. While weaving, one is occasionally led to "knot" the thread around one of these nails, and this act is needed to give stability to a process that would otherwise be hanging in the air. But if one were to ask someone who knows how to weave, "How do you do it?," they would hardly be satisfied with the answer: "Thanks to the nails!" The nails are what keep the loom together, but as such, they do not do any work. The work rather consists in the manipulation of the needles as that process which is made possible by the existence of the frame as a "non-process."

To illustrate, let us return to Popper's example about the patient who committed a crime. A therapist may be led, not by the deductive application of Adler's theory but *by their own fluid CR*, to infer the presence of feelings of resentment in the patient (for instance, using the Dialectical operator to infer, from the patient's bold and defiant attitude, underlying feelings of an opposite nature). Arrived at this point, the therapist may be reminded of Adler's theory of the inferiority complex if this constitutes part of their crystallized knowledge. They may then *touch ground* with this theory—by recognizing a resemblance between its "marks" and those of the understanding that they have been independently weaving through their fluid CR. However, after knotting their CR process around this nail, the therapist will not simply abandon their fluid CR and apply the rest of the theory. Rather, they will continue to process the clinical material in such a way that may bring them to touch ground again with that bit of crystallized knowledge or may lead them elsewhere entirely. Similarly, after touching ground with Ferro or Bollas, S started again from the clinical material and not from those theories.

A fitting illustration of this dynamic is offered by Parsons (1992). Parsons related the difficulties

[3] Riolo (2022) implicitly referred to Kant when he wrote that: "Without experiences theories are empty, and without theories experiences are blind" (p. 9). But not all that is "a priori" must be *theory*. Kant's 12 a priori categories, just like our operators, are not theories.

in his work with a psychotic patient who was presenting him with clinical material that was particularly difficult to understand. Parsons described his sense of being "lost in this material" as stemming from the fact that at this stage, he could not find any "theoretical signposts" to help him "bring meaning into it" (p. 106), that is, any *anchor points* to touch ground with. Because of the absence of any nails around which to knot his CR process, Parsons lacked the solid support of a frame and thus felt "at sea with this material" (p. 107), an image that evokes the problem with excessive fluidity in CR and the need to occasionally run "ashore." And yet, over time, as Parsons persevered in his tentative fluid operations (some of which he shared with the patient, while others he kept to himself), finally a few "theoretical schemes" (p. 107) started to emerge in his mind. In particular, Parsons started to recognize in the material "a disordered jumble of references to different stages of development" (p. 107) and was thus able to knot his CR process around some public theories that described those stages. Parsons described this dynamic as *refinding* the theory, which he "already knew" through his "personal struggle to understand this patient" (p. 108).

But the fact a frame is now more "consciously put to use" (p. 108) does not mean that Parsons (1992) was going to proceed by applying the theory *deductively*. As he noted, if it "might seem that all I have done is what a good supervisor could have helped me to do more quickly: to apply correctly the theory which I knew already" (p. 109), looking at the process in this way:

> Would carry a particular view of the nature of theory and its relation to clinical practice. It implies that theory is a set of propositions … which can be applied from the general to the particular in a given instance. (p. 110)

The "particular view" that Parsons refers to here is, indeed, what we have been calling the theory model. And it is in light of the reality of clinical experience that this view, as Parsons (1992) notes, reveals "its insufficiency" (p. 110). For as he experienced it, the CR process does not consist in "the mere application" of theory "as a received body of knowledge" (p. 105) but in the rediscovery of this knowledge "out of present need" (p. 110). If it is commonly assumed that "the practice of psychoanalysis" should be "derived from theory," at the same time our clinical experience "seems to belie this": in the work with patients, "we do not generally arrive at our interpretations by *using theory to deduce* what they ought to be" (p. 103, emphasis added). Rather, as Parsons proposed, it is about *refinding* theory through our own (fluid) CR process.

To illustrate in more detail this process, we have included a clinical vignette drawn from a Jungian analysis (Box 1). The clinical material has been pseudonymized to protect confidentiality. The operators have been abbreviated to the first four letters (e.g., DIAL = Dialectical operator) and interpolated into the text. The vignette illustrates the process by which a therapist "re-found" pieces of his crystallized knowledge—notably, the theory of the Electra complex. However, as can be seen, the CR process cannot be described as the mere application of this theory, for the therapist touched ground with it only at the end. Nor can this theory (or any other single bit of crystallized knowledge) fully capture the complexity of the clinical material. Rather, the clinical material is progressively elaborated through the use of the operators, at the same time as it becomes available. This leads the therapist to rediscover some general propositions that he already knew about or held to be true (e.g., that girls may develop a competition with the mother over possession of the father), but also to develop a "local" understanding of the clinical material that may lead them to discover something *new*—that is, something that does not fit with the Electra theory or falls out of its scope. This illustrates the special "state of mind" in which theories are present in an analytic therapist's mind as s/he works on a case (Bion, 1965, p. 51). In line with our notion of fluid CR, Bion stressed the importance of "preserving an awareness" of one's "background of theory" while allowing oneself "to be as open to clinical impressions as possible," almost striving to reproduce in oneself the "sense of being at a loss" (p. 22), as opposed to approaching a clinical case as the particular illustration of something that is generally known. And even when a theory is refound, it can still be "fluidified": as is shown in our example by the further picking apart of the analogies between the figure of Tiresias (itself a fragment of the Oedipus myth) and the patient's particular situation.[4]

[4] In this chain of CR, the therapist is also making use of some of the six "reflective operators" described in the operators model (cf. Polipo, Willemsen, & Kallai, 2024), although these are not annotated in the text.

Box 1
Clinical Vignette

The patient (P) is a 25-year-old woman who is studying to become an anesthetist. She is from the United Kingdom but has recently moved to Italy to live with her boyfriend, with whom she was in a long-distance relationship. P comes to therapy because she feels "overwhelmed" and "low," having difficulties adjusting to her new living situation. However, the therapist (T) notices that the major topic emerging from the sessions seems to be P's relation to men (FORM: extracting a theme). P does not "trust" men and lives in constant fear of them. At the hospital, she avoids male tutors, having heard anecdotes of inappropriate behavior with students. At night, she fears that ill-intentioned men will break into her apartment to kidnap her. These night fears are so vivid that stacking furniture against the bedroom door is often the only way for P to feel safe—a behavior that strikes T as odd, given that P claims to feel safe enough when her boyfriend is home (INVE: attending to elements unusual by excess). While most men are aggressive and tend to cross boundaries, her boyfriend is the opposite: respectful of her spaces and "very soft" (DIAL: noticing the opposition between crossing boundaries and respecting spaces, aggressiveness, and softness).

During therapy, T learns that P's view of men is an "inheritance" of the relationship with her father (GENE: tracing an element back to its origin). P's father was also a transgressor, as he made frequent inappropriate comments about P and her sister, such as appreciations of their "curves" (SYMB: literal vs. figurative crossing of boundaries). One time, P's father made a sexually allusive joke while P was eating a banana. P stopped eating bananas ever since, although she used to love them. This example illustrates a general dynamic in P's life: that as a result of her father's "over-sexualization," she ended up rejecting sexuality, striving to appear as "neutral" as possible (DIAL: opposition between over-sexualization and complete rejection of sexuality). This is in contrast to her sister, who grew up to be very "provocative" (DIAL: opposition between neutral and provocative appearances). At the same time, P's father used to be critical of "feminine" women, ridiculing his wife or P's sister for doing their nails, for example. Growing up, P was her father's favorite precisely because she was less "girly" than her sister. P and her father used to do many "manly" activities together, such as hunting or chopping wood (FORM: extracting a pattern). Although P had no interest in these activities, she liked having her father's "attention." By distancing herself from the feminine traits that her father criticized, P became "boyish," and still today comes to the sessions wearing large clothes that hide her curves (GENE: tracing a current element back to its origin). By doing so, P says she wishes to avoid the "male gaze," although paradoxically this behavior originally arose to gain her father's attention (DIAL: noticing the conversion of an element into its opposite; SYMB: literal vs. figurative "gaze").

T reflects that her father's behavior must have created some confusion in P, since, despite being critical of feminine women, he had married one (DIAL: noticing that something and its opposite are true at the same time). "What does my father see in my mother, then?" P must have asked herself growing up. As for P's relation to her mother, it seems quite cold (DYNA: attending to emotional charge), and P talks far less about her in therapy (INVE: attending to elements out of the ordinary by deficiency). In relation to her parents, P remembers having always felt "anxious" as a child at the thought of them being intimate. In this regard, a couple of memories resurface. In one of these, P was playing in the courtyard of her uncle's house when one of her cousins told her that her parents were "getting it on" inside. P immediately got very "anxious" and demanded they all go home, putting an end to the evening. Another time, the father came home late at night and shut his bedroom door behind him. P thought that there was only one reason why he would do that (to have sex with his wife, who was sleeping in there). Becoming again very "anxious," P knocked at their door. Her mother appeared in her nightgown and calmed her down. T notices that in both of these scenes, P separated the parents whenever they were becoming too close (FORM: extracting a pattern). This pattern seems consistent also with the fact that P slept in her parents' bed until a late age, suggesting to T a possible desire to keep them apart (DYNA: hypothesizing a motive force underlying a behavior).

Compiling the clinical material in supervision, T and his supervisor (S) are reminded of the theory of the Electra complex and contemplate the possibility that what P calls "anxiety" may also be seen as

(*box continued*)

Box 1 continued

excitement (INVE: interpreting anxiety as distraction for what is "really" going on; DYNA: renaming an underlying affective state). S also suggests a link between P's studies as an anesthetist and her desire to "anesthetize" her sexuality, as well as that of her parents (SYMB: literal and figurative anesthesia). And he notes that P's nocturnal fears should not be taken at face value either (INVE), for they may also be seen in the opposite light (DIAL), that is, as a fantasy driven by an underlying desire (DYNA). Finally, T tells S that during the last session, in which P related the memories sharing the pattern of parental separation, he was reminded of Tiresias, who, upon seeing two snakes copulating, separated them with a stick (SYMB: literal vs. metaphorical separation). T and S expand on this association by discussing the punishment that befell Tiresias for his act, which was being transformed from man to woman—the opposite of P's transformation from feminine to "boyish" (DIAL: noting a "chiasmus" between opposite elements).

Context of Justification

A way of conceptualizing the relation between operators and theory may be then to say that, in the process of CR, the operators constitute the instruments of *discovery*, while theory constitutes their context of *justification*. In fact, if public theory supports fluid CR by providing occasional points of reference, the purpose of touching ground with these can be seen as giving retrospective justification to the chain of operations that one has been putting together through their fluid CR. By refinding bits of public theory, a therapist is comforted that the formulation they have been working toward "makes sense" in light of what they already know. But similarly, we have suggested that core theory would support fluid CR not so much by generating new insights but by preselecting those that "make sense" in light of what one knows. Thus, theory in general may be said to act not as an agent of discovery but as the realm of what has *already been discovered*. As a source of constraints (core theory) or anchor points (public theory), theory would constitute the necessary counterpart to the operators. The operators, in fact, are the CR skills by which therapists are able to open up perspectives, gain new insights, and generate new "thoughts" (e.g., links, interpretations). But at the same time, the possibilities of application of the operators are virtually limitless. Among these, some will be meaningful, others less so, and still others will be meaningless. How then to decide as to the meaningfulness of a CR process? Since the operators do not contain any criteria to evaluate chains of CR or tell a "good" from a "bad" operation, in making these judgments therapists must be relying on other criteria. One of these criteria might be *theory*.

This distinction between discovery and justification, as it applies to everyday CR, can be appreciated also by considering the role of another kind of crystallized knowledge, that is, the therapist's "theory" of the patient. Our definition of crystallized knowledge, in fact, is broad enough to cover not only the conclusions that have been reached *by other therapists* on cases comparable to the one at hand (public theories) but also those that have been reached *by the therapist him or herself*: that is, their conceptualization of the case, as the knowledge they have accrued through the application of fluid CR across sessions. In this regard, we might say that analytic therapists understand the clinical material as little through theory as they do through their case conceptualization. For if the latter was the case, then, going back to the first session, where their knowledge of the patient was naught, in virtue of what would they have accrued the knowledge that they have now, at the *n*th session? Rather, analytic therapists use their case conceptualizations as they use their public theories: not as *instruments of discovery* (bases to draw clinical inferences), but as *contexts of justification* (frames).

To illustrate, let us suppose that, through their fluid CR about a series of scenarios, a therapist has arrived at the conclusion that their patient is "so-and-so." At the next session, the patient may submit a new scenario that strikes the therapist as being comparable to those they have already made sense of in function of the patient's "so-and-so-ness." If the therapist, in this case, were to apply deductively their general theory of the patient (case conceptualization) to this particular scenario, they would be engaging in crystallized CR. For they would be inserting in their CR a previously formulated conclusion instead of

grappling with the particularities of the new scenario, which may or may not lead them to the same conclusion as before. Going back to our analogy about the snippet of readymade, reusable code, we may say that it does not matter whether the snippet has been developed by someone else or by the programmer themselves.

But the conceptual "acid test" that reasoning in this way would consist of a form of crystallized CR comes from the fact that there would be for the therapist *no possibility of discovering anything new*, other than the patient's so-and-so-ness. Whether in the form of theory or of one's own case conceptualization, when crystallized knowledge is used as a base to draw inferences (instrument of discovery), the result is what Jung called the "'monotony' of interpretation"—namely, the fact of being time and again confronted in one's CR with the same conclusions, "without our being able to discover … anything in them except what we know already and are sick and tired of knowing" (1952, para. 9). Parsons (1992), too, suggested that theory, when used in this way, can "close possibilities of fresh discovery … leaving no space for hitherto unsuspected insights" (p. 110).

Instead, a case conceptualization lends itself, just as a public theory, to be used as a "frame" to be continuously refound, that is, as a context of justification. Let us take, for instance, S's overall hypothesis about the erotic (counter)-transference. If S were to start the next supervision session by simply retrieving this conclusion from memory and applying it top–down to the new material laid down by T, he would not be able to make any new discoveries. But if he kept instead this bit of crystallized knowledge in the back of his mind and engaged in fluid CR, he may occasionally be led to "knot" a new thought around this previous conclusion of his, just as he did with the conclusions by Ferro and Bollas. And in both cases, touching ground with bits of crystallized knowledge would work to make S feel *justified* that the new conclusions that he has reached "make sense," in light of those that have been previously reached, either by himself or by others.[5]

It may be challenging to start each time from the new and particular elements of the clinical material, as opposed to the previously formulated and general conclusions. But the ability of competent analytic therapists seems to consist precisely in positioning themselves at an *optimal distance* from crystallized knowledge so as to bridge the gap with the clinical material through their fluid CR. Bion (1963) described it as the ability of an analytic therapist "to retain the substance of his training and experience and yet achieve a naïf view of his work," which "allows him to discover for himself and in his own way the knowledge gained from his predecessors" (p. 86).[6] Bion was thinking here of public theory. But we may say that the knowledge to be rediscovered is not only that of one's predecessors but also one's own. For Bion (1967/1992) considered that analytic therapists should also be without memory of "past sessions" (p. 381): "What is 'known' about the patient is of no further consequence. … If it is 'known' … it is obsolete. … The only point of importance in any session is the unknown," that is, what remains to be discovered (p. 381). But while Bion stated this in rather radical terms, saying that a therapist should "aim at achieving a state of mind so that at every session he feels he has not seen the patient before" (p. 382), in our view, knowledge of the patient (and of theory) is inevitably brought over to the next session. The real issue is that this knowledge should be used not as a base for inferences but as a frame for thinking.

Further Research

In this article, we have focused on the role of theory in everyday CR. However, an important focus for future research are those more exceptional cases in which an analytic therapist is led to publish a new theory. If it is true that many theories have their origin in the clinical work with patients (Sandler, 1983), then the operators, as the knowledge structures used in everyday CR, may play an important role also in the process of theory formation in psychoanalysis. The hypothesis may then be explored that theories are in fact *crystallized chains of operations, arrived at through fluid CR*. For as Cattell also proposed, crystallized and fluid abilities have a relation of derivation, where the former are acquired "originally through the operation of fluid ability" (pp. 178–179).

[5] Touching ground with a psychoanalytic theory actually means recognizing a resemblance between the "theory" that one is independently weaving, on the one hand, and the public ones that are stored in memory, on the other. Parsons (1992) referred to his formulation as having "crystallized" toward the "rediscovery of a developmental model" (p. 109).

[6] This ability also bears on some of the "reflective operators" (e.g., Skeptical; Polipo, Willemsen, & Kallai, 2024).

Another important focus for future research is how the subscription to a set of public theories actually influences the process of everyday CR (Hamilton, 1996). The expectation would be that analytic therapists from different schools of thought "will make different psychodynamic formulations" (Messer & Wolitzky, 2007, p. 73). Yet, the results of empirical studies, including ours, indicate that they work in surprisingly similar ways, agreeing "well among themselves and to a greater degree than would be expected if they were basing their judgements on theoretical stereotypes" (p. 97). This finding is coherent with our hypothesis that operators, and not theory, are the knowledge through which most inferences are drawn in everyday CR. However, if theory still intervenes to support fluid CR as a frame, the question remains of the degree to which the fact of operating on different frames impinges on the conclusions to which therapists are likely to arrive.

Implications for Training

Traditionally, much emphasis in the training of analytic therapists is placed on the explicit teaching of public theories. In contrast, the learning of operators is a task that seems to be left to the trainee therapists themselves, who "pick them up" implicitly from their analysts or supervisors. However, in the future, ways may be explored to develop fluid abilities in an *explicit* way. In a recent study, for instance, we have shown how the use of the operators can be significantly developed through didactic teaching (Polipo, Willemsen, Hustinx, & Bazan, 2024). The aim, obviously, is not to turn the operators into a crystallized knowledge to be applied deductively, for that would defy their purpose, but to give trainers and trainees a common language to metacommunicate about the rules underlying their CR process. To use Freud's (1913) analogy, one cannot become competent in the game of chess only by learning from books fixed sequences of moves, such as "the openings and the end-games" (p. 123); for what is key are the abilities that are needed in the "fluid" part of the game, where real *thinking* (as opposed to the mere reproduction of crystallized sequences of moves) is required. Similarly, in psychoanalysis, the aim is to develop not only one's knowledge of crystallized chains of operations (theories) but also one's own capacity for thinking. This capacity is normally acquired by practice, but it could also be acquired by didactic teaching. For if, on the one hand, these abilities are more difficult to teach because the complexity of the game defies "systematic description," on the other, as Freud suggests, this "gap in instruction" may "be filled by a diligent study of games fought by masters" (p. 123). The operators model, as a model based on the study of competent analytical therapists at work, aims precisely at meeting this need. Just like Bion's (1965) theory of CR, our model wishes to formalize the steps undertaken to close the gap between theory and practice: "Can this theory be applied to *bridge the gap* between psycho-analytic preconceptions, and the facts as they emerge in the session?" (p. 16, emphasis added).

Conclusions

It is our conviction that the "puzzle" (Parsons, 1992, p. 103) represented by the connection between theory and practice in psychoanalysis can only be solved by focusing on what lies *between* theory and practice. The private theory model started going in this direction by focusing on the implicit knowledge of analytic therapists (Sandler, 1983). However, at the same time, the proponents of the private theory model continued to regard this knowledge as "theory," only of a private kind, and in this way, they maintained a dichotomy between "theory" and "practice," insofar as they envisioned nothing between them. The question remained how "theory" is used in "practice" (Canestri, 2006, 2012) and not whether what is used in practice is "theory" or something else. The assumption under this model is that *anything that is not practice, must be theory*.

In contrast, our model calls into question the centrality of theory for everyday CR. It focuses on the operators as a kind of knowledge that occupies a middle ground between theory and practice—a knowledge that is used *in practice* but is not theory, and is not private either. In our model, theory does inform practice, but only as a frame. Which is why the fact that practice is not "logically entailed" by theory (Fonagy, 2006, p. 72) is neither surprising nor problematic, since logically entailing practice was never what theory was *for*. What drives the process of CR in our model are rather certain fluid abilities mobilized by analytic therapists, which constitute the a priori structures through which they bring forth meaning. These structures are neither "over-

specified" as public theories nor "under-specified" as core assumptions, but constitute a paradoxical *specified core.*

We have started this article with the caveat that focusing on the CR of therapists requires a few abstractions. To get a fuller picture of the complexity of the analytic process, then, the first thing to do would be to bring back in the role of the patient, who is a "weaver" as much as the therapist. But the addition of the patient will not be without consequence, for the patient brings with them their *psyche*, as that which both the therapist and the patient are trying to understand, and of which what we have been calling the "clinical material" is only a manifestation. Jung (1928) wrote that it is precisely because we are "touching the miracle of the living soul" that we are forced to set aside our "theories" (p. 361). In the analytic process, the therapist is sitting with theory at its back, as it were, but in front of them is a living psychic reality. And the therapist will have to "touch ground" with both, like a swimmer in the pool, tapping now one edge and now the other. For this living soul may be regarded indeed as the *ultimate context of justification*. The question, in fact, is not only, "Is this formulation I have arrived to consistent with my crystallized knowledge?" but also, "How is the living soul of my patient (and my own) responding to it?" Does it produce, for instance, a sense of insight? Or, even in the absence of insight, does it produce new clinical material (e.g., an intensifying of associations, a resurfacing of memories)? It is because we are dealing here with a reality that lives that there is a need for a fluid element. For if our object was dead instead, theory would probably suffice. But that life is the damnation of psychoanalysis was already noted by Bion (1962), who considered it the "peculiarity of psychoanalytic investigation" that its objects are not inanimate, but "suffused with the characteristics of life" (p. 26).

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