Chapter 8
Jan Smedslund and Psychologic: The Problem of Psychologism and the Nature of Language

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> …logic is a psychological discipline since the process of coming-to-know takes place only in the soul, and since that thinking which completes itself in this coming-to-know is a psychological process. …Obviously, no-one claims that psychology dissolves into logic. What separates the two sufficiently is that logic is a sub-discipline of psychology (Lipps 1893, cited in Kusch 2015)

Having followed the work of Jan Smedslund for decades, I can only say what a privilege and pleasure it is to be able to address in some small way the very extensive corpus that he has produced in support of his *Psychologic*. At this juncture, I am going to assume that the reader is familiar in large measure with Smedslund's work and that many of the papers in this volume will have elaborated on the foundational issues as well as the changes in psychologic over the years. I will refer to Smedslund's work as necessary but will not provide a broad overview in order to land on the three interrelated issues I would like to highlight in this chapter.

First, the analytic-synthetic distinction is an important issue that was debated in mid-twentieth century philosophy. I made reference to it in my only commentary on psychologic some years ago (Stam 2000). It is an important issue since Smedslund himself has addressed the question on a number of occasions, for example in 2002, but unfortunately he dismissed it by arguing that this issue could be "bypassed" (Smedslund 2002, p. 55). I will argue that this is too fast, that despite the "complex topics involved" (Smedslund 2002, p. 55), these are questions that are crucial to the project of a psychologic.

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Second, I would like to place Smedslund's work in a historical perspective. That is, I wish to relate his efforts to found a psychologic to the late nineteenth and early twentieth century initiative to found human reason on a series of logical laws. This turns out to be a complicated history, and I shall be presenting a very short version of it. My reason for doing so is that I have not seen this commented on in any of the many places that Smedslund's work has been discussed and debated nor have I noted any mention of it by Smedslund himself.[1] By placing psychologic in a historical perspective, we can see that Smedslund's notion of the a priori conceptual structure of psychology has some very influential forerunners, even if they constitute a different project in other ways (I want to be clear that I am not claiming that they are equivalent). These historical forerunners provide us with a number of crucial lessons for contemporary psychologic and psychology.

Third, I wish to emphasize that the nature of language that we have come to understand through the Wittgensteinian tradition throws up some serious limits to psychologic.[2] In both 2002 and more recent work, Smedslund has begun to respond to his critics who have noted this problem as a deep problem for psychologic. In my view, Smedslund does not go far enough in addressing this fundamental question because it will require more than simply making minor changes to the system of psychologic. Nonetheless, this need not be a fatal counterargument.

Before starting, however, I must, like all of those who have read and admired Smedslund's work, acknowledge the tremendous service he has offered to the theoretical endeavors in the discipline and in a sense for psychology as a whole. With deceivingly straightforward titles as "Why psychology cannot be an empirical science" (Smedslund 2016) and "What follows from what we all know about human beings" (Smedslund 2012a), he has advanced a sophisticated and integrated system of developing arguments about the nature of the a priori/noncontigent in psychology and how it must be separated from the empirical/contingent to keep us from doing pseudoempirical research. In this, I can only support the project, for much psychological research is indeed pseudoempirical, sometimes for the reasons articulated by Smedslund but sometimes for other reasons, which I will attempt to examine in my conclusion.[3]

Even for those of us who disagree with elements of the structure of psychologic however, the depth and breadth of Smedslund's efforts to create a psychologic have opened up discussions and possibilities to address the serious shortcomings of the

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[1] The version of psychologism that I discuss here is the original concerns with psychologism as it was expressed in the late nineteenth century (Kusch, 1995). The use of the term by Sugarman (2017; Chap. 16) is quite different and represents one of the many generalizations of the term in the twentieth century (see Kusch 1995, 2015 for a discussion).

[2] See also chapters by Martin B. Smedlund and by Michael McEachrane (respectively, Chaps. 8 and 9 this volume).

[3] Smedslund (1991, p. 326) provides a formal definition of what is "pseudoempirical" which states, in part, that researchers take propositions to be empirical when they are in fact a priori and noncontingent. I take pseudoempiricism to include tests of hypotheses that cannot possibly be tested because they do not specify precise objects of investigation (see conclusion below).

discipline that many of us have called home for the length of a career. It is not only in his original writings but also in his response to critics that he has shown a sensibility that transcends the simply combative nature of many debates and clarified over the years this project of a psychologic. In addition, he has had to field critiques from die-hard empiricists and drive-by data collectors as well as more philosophically inclined interlocutors who are in some measure sympathetic with the project—as I myself am.

In the meantime, however, Jan Smedslund has also modified his stance slightly, which will be relevant to my comments. I am referring in this instance to his 2012 paper in the *Scandinavian Journal of Psychology* (2012b) wherein he expressed some reservations about earlier claims and doubles down on the work of Anna Wierzbicka, whose notion of a natural semantic metalanguage has been important as a foundation for Smedslund (e.g., Goddard and Wierzbicka 2014). More on this below.

Analytic vs Synthetic Distinction

In a commentary on a paper by Geir Smedslund, I had tried to begin a discussion on the analytic-synthetic distinction and the historical foundations of attempts to ground psychology in logic (Stam 2000). Obviously, I must not have been very clear because in his response to my commentary, Geir Smedslund did not appear to understand what I was trying to do (G. Smedslund 2000). Although this was not an exchange with Jan Smedslund, Geir Smedslund certainly claimed to be representing psychologic. Hence, I refer readers to that earlier commentary and will only provide a brief summary here. The fact that both Jan and Geir Smedslund have responded to this issue, however, will allow me to say something new about the question.

The analytic vs synthetic distinction has been debated for the better part of 200 years. Beginning with Kant, the literature is vast, and the words have certainly been used to refer to different phenomena. According to Kant, an analytic statement is one in which the concept of the predicate is contained in its constituent terms. Logical positivists expressed this in terms of *meaning*, that is, analytic truths are true by virtue of the *meanings* expressed and only the propositions of logic and mathematics fulfill these requirements. So for example, Ayer (1936/1946) argued—following the Vienna Circle—that an empirical hypothesis may not be conclusively verifiable, but "some possible sense-experience should be relevant to the determination of its truth or falsehood" (p. 41). Furthermore, "if a putative proposition fails to satisfy this principle, and is not a tautology, then I hold that it is metaphysical, and that, being metaphysical, it is neither true nor false but literally senseless" (p. 41). Hence, by the middle of the twentieth century, the analytic-synthetic distinction had been championed by the logical positivists to become a distinction between a priori analytic claims, probable hypotheses, and a third category of meaningless statements that were metaphysical.

The classic example of analytic statements that populated philosophy textbooks for generations was "all bachelors are unmarried." Or to use one of Smedslund's examples, "P Becomes Surprised If, and Only If, P Experiences Something Unexpected" (Smedslund 2002). These statements are true because of the meanings assigned to the word "bachelor" or the word "surprise." Synthetic truths are those that are dependent on the way the world is, that is "matters of fact" as David Hume had it. Hence, a statement such as "Jane is married to Tilley" is a synthetic one because its truth is dependent on some characterization of the world.

Among others, Quine (1953) famously argued that the distinction between analytic and synthetic statements could not hold because it could only be defined in a circular manner and that it was dependent on the disputed verificationist theory of meaning. The latter referred to, in short, the notion that propositions could only be known if we could strictly separate meanings from facts. Speaking of science, Quine argued that we do not evaluate statements one at a time since all statements are interconnected. Instead we evaluate the field as a whole, and hence the analytic/ synthetic distinction was a false one. In other words, argued Quine, "taken collectively, science has its double dependence upon language and experience; but this duality is not significantly traceable into the statements of science taken one by one" (Quine 1953, p. 42). While others have continued to defend this view on occasion (e.g., Juhl and Loomis, 2010, 2012; Russell 2008), it was for long thought of as fallen by the wayside as a, if not indefensible, certainly difficult to defend notion in practice. What this meant for the philosophy of science, at least for the past 60 or so years, is that theories are viewed as not only resistant to change but they are easily adjusted by making changes at the boundaries.[4] The implications for science were that it was hard to take seriously the notion that a single experimental observation could undermine a theoretical edifice.

If this debate is any indication, the distinction that Smedslund has built psychologic on, between a kind of logic based on semantic primitives, and an empirical research tradition that is deluded by its pseudoempirical contents, is not as clear-cut as it seems. A priori distinctions cannot be rooted in the axioms that Smedslund has argued for but instead are based on local traditions or what Parrott and Harré (1991) called "family resemblances." I think this will become clearer after the next two sections of this chapter but for now I merely wish to argue that the hard line between Smedslund's a priori and empirical propositions does not hold for the simple reason that the distinction between these two is based on an outdated, logical positivist notion of meaning.

To be fair, Smedslund has addressed this issue on at least several occasions, including his major 1991 paper in *Psychological Inquiry* and in his 2002 paper in the *Review of General Psychology.* In 1991, he argued that he prefers the terms "a priori" and "empirical" to analytic and synthetic. This is because the latter two terms are "an amalgamation of purely logical (modal) and epistemic notions and

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[4] Further complicating matters is the notion first articulated by Hanson (1958) that data is theory-laden as well as Kuhn's (1962) conception and critique of scientific progress. Although this too has implications for psychologic, I will not address these developments here.

therefore may serve to confuse the issues" (p. 326). Smedslund does not say how they serve to confuse. This usage however is consistent with the general usage preferred by logical positivists such as Ayer. While acknowledging the influence of Quine, Smedslund argues that "this debate need not concern us here. In scientific practice, there will always be a difference between what is presupposed and taken to be removed from direct empirical test and what is taken to be empirically testable. It is implicit in the above that what is to be regarded as a priori or empirical is relative to the axioms and definitions selected" (p. 326). But this is circular, what is regarded as a priori is defended on the basis of what has been selected, a priori. Smedslund dismissed the debate while failing to recognize the profound defeat of logical positivism and its theory of meaning, vestiges of which remain in psychologic.

In 2002, Smedslund argued that, "If 'analytic' is taken to refer to sentences that follow from the meaning of their constituent terms, then what is analytic in a given language can be determined by studying the consensus among native speakers. Later I describe studies that show the extent to which there is consensus about the axioms of psychologic" (p. 55). However, studying the "consensus among native speakers" is historically contingent, not analytic; languages are not set in stone. Just as meanings change (note for example how the terms *subjective* and *objective* have shifted over the past several centuries—Daston and Galison 2007), so can a consensus break down (see how quickly the word *gay* took on multiple meanings in the past 50 years). Certainly, we can agree broadly on the use of words, indeed, we have to, but as Parrott and Harré (1991) note, local conditions of application and core meanings cannot be separated. In sum, the distinction between a priori statements and empirical claims is just not as clear-cut as Smedslund takes it to be.

The Psychologism Debate and Logic in the Late Nineteenth Century Philosophy

I am pleased to be able to raise again the historical issues, this time I will rely on the extensive discussion of the notorious problem of psychologism provided by Martin Kusch (1995, 2015). The traditional account of the history of late nineteenth century psychologism is a debate in philosophy about the place of logic within psychology and the place of psychology within logic.[5] The brief version is that German logicians, such as Theodor Lipps, were impressed by John Stuart Mill's claim that logic was a branch of psychology (Kusch 1995). The Germans held that logical laws were the empirical generalizations of human reason. Kusch in his 2015 article lays out

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[5] Kusch's 1995 volume makes clear that this is not an arcane debate about the relationship between psychology and logic but involved the allocation of chairs of philosophy to experimental psychologists. Philosophers fought back to protect their discipline using accusations of 'psychologism' to deter the appointment of psychologists. In the meantime the term "psychologism" came to refer to a wide variety of 'errors.'

just how complex these arguments were, but it was at least clear that psychologism could be seen as the claim that "logic is a part of psychology" or "logic must be based on psychology" (Kusch 2015). Kusch (2015) identifies another version of psychologism that has some relevance to Smedslund's psychologic. Kusch expresses it as follows:

1. The touchstone of logical truth is the feeling of self-evidence.
2. The feeling of self-evidence is a human mental experience.
Ergo, logic is about a human mental experience—and thus a part of psychology.

Kusch attributes this particular version of psychologism to Theodor Elsenhans (1862–1918), one of psychologism's defenders (see also the Lipps quote with which I begin this chapter). Psychologism concerned itself in the first instance by demonstrating that mathematics and logic were part of psychology and that the objects of logic could be explained by psychological observations. This is of course *not* what Smedslund's psychologic claims. Instead, Smedslund has argued that …

> The axioms and definitions of PL get their necessary status from the combination of having a compellingly plausible mass of implications and having unacceptable (senseless or absurd) negations and alternatives. In other words, the axioms and definitions indicate how we must use language to describe and explain psychological phenomena, in order to make sense and be consistent (Smedslund 1991, p. 334).

Smedslund's argument here is that a natural language, having "developed" over "thousands of years" has a "conceptual framework" that is very difficult to change. "A language prohibits an indefinite number of logically possible permutations and combinations of symbols" (Smedslund 1991, p. 334). Hence in its original formulation, psychologic was tied to the structure of language wherein language is the mediating link between psychological phenomena and psychologic.

In 2012, Smedslund reiterated this position but with one addition. After a statement that a "central" feature of psychologic is that it is organized as an "axiomatic system" Smedslund (2012b, p. 296) argues that.

> A search for such a system occurs almost necessarily, when one deals with an unorganized multitude of sentences, and especially if one cherishes the idea that these sentences should form a system as exact (cooperationally precise), neat, and simple as possible. Then, questions about whether or not given sentences do or do not follow from other sentences, easily come to the fore. If a sentence implies numerous and important other sentences, yet cannot itself be derived from any more basic sentences, and, in addition, is experienced as necessary, one has arrived at what is called an axiom. Together, the axioms make up a maximally simple description of how humans construe, or organize their view of, other humans, given an innate conceptual framework.

So far this is much like earlier versions of psychologic. However, Smedslund adds, "Since the axioms cannot be tested logically or empirically, they can only be tested by consensus" (p. 296). Not only is psychologic a system that, according to Smedslund, makes explicit what is already implicit in language and common sense, "the axioms are constructions applying to all human social realities, and should be shared by everyone" (Smedslund 2012b, p. 297).

The same year Smedslund (2012a) described psychologic as a "*proposal* to organize and describe human activity in a certain way" (p. 659, my italics). Rather than a system, it is here a mere "proposal" but Smedslund follows this not with an explanation of what is meant by a proposal, instead it is followed by "*hence*, it is normative, and involves a *suggestion* to talk in a certain way and take for granted certain things about the world" (p. 659–660, my italics). But the "hence," which would normally mean, "consequently" or "therefore," does not follow from what precedes it. It might be better to say that it is a proposal, and that as such, it is also normative or possibly prescriptive, by being a suggestion to talk in a certain way. Smedslund continues, "It is not about the relations between words, but about what we should take for granted in our understanding of the world" (p. 660). At this point, it is not what is "shared by everyone" but rather a tentative suggestion that this might be the case.[6]

The difference between the earlier and later version(s) is that Smedslund has moved away from what appears to be a foundation in logic and grammar to a foundation in the consensual use of language. Harré (1999) has earlier noted that this is like a *psychosemantics*, not a *psychologic*. "A culture is defined by those semantic principles it takes to be consensually self-evident. … There will be a Smedslundian psychosemantics for each community" (p. 38). Unfortunately, Smedslund does not fully develop his point, and it remains for the reader to fill in the details. Nonetheless, this seems to provide the seeds for an important shift that will change the way psychologic is understood.

What is my point here? Smedslund is neither the first nor likely to be the last to argue for the importance of logical foundations to human psychological phenomena. The failure of either Smedslund or his critics to notice this is not particularly surprising given the complex history of this debate at the beginning of the twentieth century. However, as Kusch (1995, 2015) has pointed out on several occasions, there are multiple echoes of the psychologism debate in contemporary psychology and philosophy. For example, there was a call by Quine in the 1960s to return to a form of psychologism through a naturalized epistemology, and there are contemporary philosophers who have revived elements of this debate (Juhl and Loomis 2010, 2012; Kusch 2015; Russell 2008).[7] Indeed, elements of the current penchant for neuroscientific explanations of all things psychological (what Smedslund (2020) in his Chap. 13 in this volume calls "neuro-ornamentation") have a resonance with the psychologism debates. So to note the parallels between nineteenth and early twentieth century philosophical and psychological debates and Smedslund's work is to note that Smedslund's arguments are part of a long series of speculations on the relationship between thought, logic, and action. Of all psychologism's critics, Frege's and Husserl's attacks on psychologism were considerable and extensive and as

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[6] I am indebted to Tobias Lindstad for pointing me to this passage (despite the fact that I had read it prior to its publication as the editor of the journal that published Smedslund 2012a).

[7] To be clear, contemporary forms of the debate in fact have little in common with late nineteenth and early twentieth century accounts of psychologism save for a family resemblance that appeals to naturalism or materialism as foundational moments for psychology.

Kusch (1995) points out, this was not unrelated to political developments in German philosophy departments at the turn of the nineteenth century. Prior to WWI, psychologists in German-speaking countries had no departments of their own and increasingly occupied chairs in philosophy departments. The charge of psychologism was leveled at psychologist/philosophers in an attempt to return logic (and thus philosophy) to some non-psychological foundation. It was also an attempt to prevent the further incursion of psychologists into philosophy departments. In Husserl's case, the alternative to psychologism would be phenomenology, a foundation for an entirely new philosophy based on the structure of consciousness, not logic.

For Smedslund, however, the attempt to create a psychologic is deeply embedded in the contemporary failure of psychology to develop as a natural science. Here logic as a kind of precursor to meaning is not based on psychological categories but, instead, is the consequence of psychological categories. Natural language consists of "context-influenced" words, according to Smedslund, and "the semantic primitives and the system they form is always resorted to when humans describe what they experience to each other" (Smedslund 2012b, p. 299; see also Smedslund 2011). Furthermore, the axioms of psychologic are unconscious, that is, they are part of a "subjective unconscious" which makes it a kind of grammar (Smedslund 2012b, p. 299). This claim is not surprising since people presumably do not go about formulating the kinds of axioms that Smedslund claims we need to make sense of the world. So an axiom such as the "axiom of mentality" ("P takes it for granted that O can know, think, want, feel, perceive, say, and do, UNLESS, there are indications to the contrary," p. 297) is created unconsciously or sometimes as Smedslund notes, unreflectively. Furthermore, it must be stated in semantic primitives as defined by Wierzbicka (1996). Such "primitives" must be lexically represented in all languages (e.g., I, you, someone, something, etc.).

Smedslund thus places the system of psychologic in a similar class (but not the same) as Chomsky's universal grammar. Perhaps this is far-fetched but in commenting on John Shotter, Smedslund (2012b) argues, "all humans appear to share one particular set of common primitive concepts" (p. 298). Hence, there are features of language (semantically primitive concepts) whose logical relations create psychologic. What Smedslund has done is, in effect, taken part in a long tradition of trying to formulate just what the relationship is between psychology and logic. Does logic depend on psychology or is psychology independent of logic, the origins of which must be sought elsewhere? For Smedslund psychologic is based in language, semantic primitives to be exact, and hence the connection between logic and psychology is once again on the table. What the history of these debates has shown however is that the arguments for linking psychology and logic have not been supported by either science or philosophy (despite the political reasons for the original anti-psychologism movement). Logical laws are not psychological laws was Husserl's argument, and the notion that laws of logic, or for that matter psychologic, are laws "in accordance with which psychology must proceed" (Kusch 2015), was rejected over a 100 years ago as a clear refutation of psychologism. Indeed, if we take logical laws to be the precursor for psychological laws, we deny the autonomy of psychology and place psychology within a rigid framework of a limited set of

rules ("primitives") within which it must proceed. The history of psychology itself is proof enough that the discipline will not be limited in this way, even if, according to Smedslund, the discipline is wrong. The vast range of topics and problems discussed in the discipline can hardly be confined to a few primitives. However, that does not mean that the analysis is not useful for other purposes. The notion that there are a number of key semantic primitives is interesting in its own right even if it does not necessarily mean that it serves as a foundation for psychological life. Furthermore, Smedslund's claim that much of psychology is pseudoempirical is an insight that I would not want to jettison despite my misgivings about psychologic.

The Wittgensteinian Bargain

Smedslund's use of semantic primitives and the placement of psychologic within language might seem to escape this problem altogether. As others have noted, however, it raises a second issue, one related to language and what might be called the linguistic turn in philosophy and the social sciences. This too is a historical question; there have been more than 50 years of debate and elaboration on a question that, in this case, Smedslund has actually addressed. I believe this is in part because of the issues raised by Rom Harré and his colleague Gerrod Parrott (Harré 1999; Parrott and Harré 1991) and by John Shotter (1991, 1994).

For Wittgenstein, the meaning of a word is in its use. Parrott and Harré (1991) argue that universal assent is insufficient to create universals, axioms, or theorems. A proposition about embarrassment (used as an exemplar by Parrott and Harré) expresses the "local conditions for the application of concepts from the relevant semantic field…universal assent is not a criterion for a proposition's being an a priori or conceptual truth" (Parrott and Harré, p. 359). Local conditions of application need to be discovered, and the core meanings (the semantic primitives) are not available apart from the local conditions of application. Wittgenstein expresses the difficulty here (1953/1958) as follows:

> "So you are saying that human agreement decides what is true and what is false?"—It is what human beings *say* that is true and false; and they agree in the *language* they use. That is not agreement in opinions but in form of life (§ 241).

I quoted Smedslund above as saying, "since the axioms cannot be tested logically or empirically, they can only be tested by consensus" (2012b, p. 296). Wittgenstein, however, is not interested in overt agreement or in a consensus but in agreement in "form of life." He follows this with "If language is to be a means of communication there must be agreement not only in definitions but also (queer as this may sound) in judgments" (§ 242—a passage also quoted in this context by Parrott and Harré). A "form of life" is a complex project in the *Philosophical Investigations*(PI), but it indicates that our agreements in language are embedded in the pragmatics of everyday life. As Wittgenstein (1953/1958) argues earlier in the PI (§23), language games are part of a form of life, that is, language works because it fits into a pragmatic,

contingent way of being in the world.[8] One interpretation of "form of life" is one in which it might be suggested that there is only one universal form of life, a human one (Biletzki and Matar 2018). But even here we do not have a psychologic so much as a multitude of activities that count as human. For to begin to catalogue the numerous ways in which cultures characterize ways of living is beyond the lifetime of any anthropologist, which is not to say that we cannot count on certain regularities or transcultural phenomena. This has been the focus of much debate in philosophy if not anthropology, most particularly around Quine's conception of "radical translation" and Davidson's "radical interpretation" (see Glock 1996). Although Quine takes translation to be indeterminate, in effect Wittgenstein's insight is that any translation requires some overlap in forms of life (Glock 1996, p. 168).

Shotter likewise uses a Wittgensteinian move to address a core issue in Smedslund's work,

> …I suggest, rather than always already having certain undisputable core meanings (as if they only make their appearance within a closed textual system), words in everyday life are best thought of as open to different uses in different circumstances, in other words, as a constant set of forms or means (like the tools in a toolbox) for use in the making of meanings (Shotter 1991, p. 365).

In addition, Shotter (1994) argues against the kind of rigid closure argued for in Smedslund's psychologic. He indicates that the notion that our understanding of closure in language is a moral, practical, and political matter. In the traditions of Vygotsky and Bhaktin, and especially, the understanding of meaning in the Wittgensteinian tradition, Shotter attempts to clarify the ways of sense making that already exist prior to our invention of theoretical frameworks and the like (Shotter n.d.). As Shotter argues,

> To arrive at such a sense, we need, I will argue, to oscillate continually between traditional scientific inquiries of a methodical kind and non-traditional philosophical explorations, aimed at our gaining an *orientation*, a sense of knowing "our way about," as Wittgenstein (1953, no.123) puts it, within each new circumstance we create in the scientific phase of our activities—for in our more practical affairs, rather than simply seeking 'truths' to satisfy our 'minds,' the results we seek are of the kind, as again Wittgenstein (1953) puts it, where we say "'Now I can go on'" (no.154). We need to arrive at a 'directive sense' which, although still not at the level of a certainty, arouses in us the feeling that our next step is the best one available to us in the circumstances in question (Shotter n.d., p. 5).

Shotter spent the better part of a life in psychology working out where this kind of inquiry might lead. He emphasized in numerous writings that in our interactions there is much that is both unreflective and unthinking but always culturally structured. Utterances are filled with responsive reactions to other utterances, Shotter argued, and he called this a "relational-responsive" understanding as opposed to a "representational-referential" understanding that is overtly conscious (e.g., Shotter

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[8] I am aware that the notion of "form of life" in Wittgenstein's work is in fact a contested notion. However in this case, the question of a language game as an agreement about a form of life rather than an opinion about the contents of language are a propos (see Biletzki and Matar 2018).

1999). Human interaction has a dialogical structure to it, which for Shotter meant that we rely on what Bakhtin called *speech genres*,

> …it is our actual or imagined ways of us responsively relating ourselves to each other—in what, as already mentioned, Wittgenstein calls our "forms of life"—that are the basis for our ways of talking, which ultimately provide us with our ways of thinking and feeling, valuing and judging (Shotter 1999, p. 80)

Like Smedslund, Shotter considered most of contemporary psychology a kind of pseudoempirical enterprise. Yet his take on the question of what constitutes common sense was far from traditional. He drew a trajectory from Vico through Bakhtin to the present by arguing that we have missed a crucial feature of human practices and that these practices contain within them a social poetics and not a theory to be discovered.

Smedslund acknowledges in several of his articles that both Harré and Shotter have caused him to rethink his work. In response he noted that psychologic "will remain a technical suburb of natural and culture language (Parrott and Harre 1991), because it is adapted to suit professional requirements" (Smedslund 2012b, p. 300). In the same paper he notes that.

> it gradually became clear from the Wittgensteinian view, including the 'intrinsic contestability' of word meanings (Shotter 1994), that ordinary language is resistant to the quest for precision and order. In line with a suggestion of Parrott and Harre´ (1991), I have come to regard psycho-logic as a constructed technical system, that, while taking its explicit departure in the semantic primitives of ordinary language, aims at making more precise, and systematizing, a conceptual framework for psychology (p. 295).

With respect to Shotter, Smedslund simply reiterates his belief that Wierzbicka's semantic primitives are sufficient to make the case for a closed system of the sort that Smedslund espouses. I hope I have made clear here that by doing so he neither acknowledges nor considers in any serious way what Shotter has been arguing. For Shotter, language does not prescribe in the sense that Smedslund wishes us to believe, it does not contain a fixed set of priorities from which springs a psychology, but instead our utterances display a certain heteroglossia. Bakhtin argued that the utterance brushes up "against thousands of living threads" (Bakhtin 1981, p. 276). Through a process he called *ventriloquation* we show where we come from, which world we inhabit and something of our beliefs and ideologies (Wortham 2001). This is a long way from semantic primitives, which may exist but perhaps not in the way Smedslund argues they exist. Instead, common features of language reflect common, embodied experiences in the world. We are historically conditioned in the way we must all find shelter and food, find ways of organizing families or their equivalents so following generations are appropriately inducted into cultural practices, organize our civic life in ways that reflect our priorities, and so on. This does not even begin to take into account the vast technological changes that have been unleashed on human life in the past 400 years, and the way these have changed our ways of interacting. Certainly, there will be semantic primitives in such circumstances if only because we share a bodily existence within similar contexts, opportunities, and challenges. But the number of ways in which we express local

conditions are near impossible to count, and their interactions create ever more complex as well as uniform ways of being.

I take seriously Smedslund's (2012b) claim that psychologic is a kind of constructed, technical system. This is indeed a reduced project for psychologic, akin to arguing that it is a technique for interpreting psychological claims rather than a claim that undermines the project of an empirical psychology. Though this may seem to run counter to the project as seminally presented by Smedslund, exemplified to its most extreme by recent titles such as "Why psychology cannot be an empirical science" (Smedslund 2016), this may perhaps nevertheless be a viable way of proceeding for a future project of psychologic.

Conclusion: What Can we Gain from Psycho-Logic

This has been a quick, far too quick, movement through a number of key issues in Smedslund's work. I wish to close with a brief reflection on the problems of psychology and to honor Smedslund's work in a different way.

Many critics of the discipline under a variety of topics have analyzed the pseudo-empirical elements of psychology. For example, psychology is dependent on a deceptive set of statistical practices contributing to the current crisis of replicability. This is fostered by such practices as *p-hacking* (Simmons et al. 2011) among other "Questionable Research Practices" (Shrout and Rodgers 2018), as well as outright fraud, the most infamous of which was that perpetrated by Diederik Stapel in The Netherlands.[9] Smedslund is right to note that much psychological research seems not to move the field forward in any obvious way as one might otherwise expect from a mature science.

While the diagnoses have been legion, the solutions are limited (see Shrout and Rodgers 2018, for a number of commonly suggested solutions). There are several reasons for this; primary among them is, I claim, the nature of psychological theorizing.[10] Our notion of a "theory" is not like a theory in physics nor is it even like the theory of evolution. The conceptual frameworks of psychology are weak insofar as they do not specify clear and well-defined objects of investigation. Instead, objects

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[9] Stapel was a professor, and eventually dean, who held positions at two Dutch universities and fabricated data over the length of his career as an academic psychologist. According to the website Retraction Watch, at least 58 of his articles have been retracted from the published literature since the investigations into his activities began in 2011 (see http://retractionwatch.com/category/diederik-stapel/)

[10] The other is the problem of reflexivity, which will need considerably more space to expand on than is available here (however, see Stam 1996). In short, reflexivity (which is yet another contested concept) refers to the claim that in order to understand, research or practice psychology one must be an apt participant in the world/culture/community where psychology makes sense. As such psychological theories are always historically bound claims that are embedded in particular worlds. On such an account, psychologic could never claim to be an absolute set of axioms applicable across time and geography.

of investigation are determined by the functions that create them. A personality trait is the outcome of a score on a scale, it does not exist outside of the completion of that scale. An experimental study of memory is made possible by the creation of a task that requires someone to recall material learned under some standard conditions. We then say we have an example of, say, episodic memory when the person in question can recall what and where she learned the target material. Now the object of investigation is visible. Hence, psychology is wedded to a functional language, a language that is inherently flexible on the one hand and whose objects can be multiplied indefinitely on the other hand. How is this possible? A functional language allows even a neophyte to quickly create "variables" or other psychological objects by simple naming them and creating conditions for their existence.

Let me take an example from a recent issue of the *Journal of Personality and Social Psychology*. Schumpe et al. (2018) claim that "sensation seeking mediated the relation between meaning in life and willingness to self-sacrifice and support for political violence" (p. 1). Each of these four variables was determined using a standardized scale with anywhere from 5 to 21 items ranked from "1" to "5" or "1 to 6" or "1" to "7." Hence, each of these objects of investigation was made visible through the completion of a scale—a set of numbers derived by marking a page after reading a set of statements. I am not interested in such things as validity or reliability here, I assume they are adequate in these regards. The point is that the objects of investigation do not exist until participants have read a set of statements and indicated a number on paper that purports to show their level of agreement or disagreement. There are thousands of such scales in the psychological literature and hence each is an object of investigation that can be manipulated, correlated, or factor analyzed, etc., for some purpose. Such objects, as I said, can be created indefinitely because the theories that generate and "explain" such variables are themselves expressed in a functional language that does not specify the objects of investigation. The study by Schumpe et al. (2018) concerns itself with "Significance Quest Theory" and "Sensation Seeking." The former claims that the "desire to matter and to feel meaningful is a fundamental human need" (p. 1). Sensation seeking is based on the notion that some people need more stimulation than others. Neither of these "theories" specify objects of investigation. They allow the researcher to develop what they need to "test" the theory which can only be "tested" when the variables are made visible through some procedure (filling in a rating scale). Consider the difference with certain other sciences: When I want to know the velocity of an object, Newton's second law of motion specifies precisely what I need to know, i.e., mass and acceleration. But in psychology we define objects as needed based on procedures. Hence, it is inherently flexible, my version of a sensation-seeking scale might be completely different from the standard one even though it is equally reliable and valid. Hence, we can create objects of investigation indefinitely. These functional entities are largely invented anew at a high rate and their relationship to one another appears to be of little concern to the research community. On the one hand, their inherent flexibility and manner of reproduction allows even the neophyte to produce research topics and research studies with very little training or background. Why can second year students design and conduct a study with very little training? Take a variable

and break it down into two variables, ask what the relationship between them and some other psychological entity is and you have a simple study. However, it encourages a proliferation of hypothetical entities such that there is little observable progress or concern for the ontological status of these entities.[11] There is no limit to the kind and degree of functional entities that can be introduced, studied in some research context and hence become a legitimate feature of the psychological literature. And the psychological literature is one very large, sprawling morass, the oversight of which is beyond the capabilities of any one person.[12]

This version of functionalism, which I have called "indeterminate functionalism" (see Stam 2004) is also referred to as "role functionalism" (Kim 1998).[13] Theoretical entities are defined, at least in the past 75 years of the discipline's research history, as *functional* entities. This means that psychological objects and properties are not *realistically* but *heuristically* defined. These heuristic, functional accounts can be cognitive, behavioral, or even psychodynamic and are frequently fused to various biological and more recently to neuropsychological accounts. Overwhelmingly committed to a version of theoretical statements in the language of variables, as I noted in my example above, psychologists create these heuristically functional descriptions but make no commitment to any ontological properties. They are functional descriptions of properties that are defined according to how they act rather than what they are. They are functional insofar as their presence *must* be inferred from a set of practices, that is, actions carried out in a laboratory or elsewhere. Indeterminate functionalism is either in danger of sliding into dualism or reductionism. It slides into dualism because it does not commit itself to real properties, but it is in danger of sliding into reductionism because it carries a promissory note that eventually all those functional entities that remain imprecise will be known when science allows.[14]

This does not mean there is no possible value to empirical content. On the contrary, any individual experiment is grounded in a set of genuine observations. Yet, in the long run, this research will run aground in a quagmire of functional entities.

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[11] It is not that psychologists have some disagreement about the ontological status of their objects of investigation by, for example, being eliminativists who must first define features of the world in functional terms. It is more that it just is not discussed or debated but taken for granted that the kind of indeterminate functionalism is what counts as psychological theorizing. In this way psychology in general, with notable exceptions, has continued a fuzzy framework of vague ontological entities whose status remains of no immediate concern to the discipline, so long as it can carry on business as usual.

[12] Which is not to deny that there are pockets of regularities, phenomena that recur predictably, and "findings" that are easily reproduced. Mostly, however, they have no relation to a larger frame of psychological understanding.

[13] Kim's aims with his arguments, however, are entirely different from mine and seeks to ground a non-reductive version of physicalism. However, he ultimately concludes that such a perspective cannot account for the so-called phenomenal (qualitative) aspects of mental states.

[14] Perceptual and psychophysical cases are more complex and hence not included in this discussion.

Eventually, the field decides that a particular phenomenon is no longer robust and the investigators move on. Smedslund is right then to note the pseudoempirical nature of this enterprise. That is, there is little progress in the endless chase of new variables when these variables are dependent on ordinary, everyday understandings that are given a new coat in the guise of functional descriptions. Smedslund is right to suspect there is something basic at work in our discipline that smuggles everyday knowledge into a language of variables and experimental designs. I believe that his seminal work on psychologic has alerted us to the nature of some preconceptions we have by virtue of our participation in a community of language users. Such preconceptions, however, are not part of some set of axioms but they are part of shared, mutual existence.

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