Toward a More Realistic Constructivism

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Kelly's constructive epistemology needs to transcend its background of instrumentalism arising from Dewey's influence. What enables us to well avoid instrumentalism is a notion of truth that incorporates both coherence and correspondence. If we were to abandon coherence, we would have to embrace the naïve conception of realism, while by abandonning correspondence we would have to embrace instrumentalism because we would have to consider the workability of a theory or a construction system and its coherence with previously successful ones as constituting the turth of a given theory or construction system. Such a realistic constructivism privides a more satisfactory conception of personal constructs. According to this view, we no longer think that personal constructs are either true nor false, rather they are divided into true and false in accordance with the grasp of reality reflected in our best theories. In other words, having provided a theory of truth, we are ready to compare different personal constructs with the grasp of reality involved in the theory in terms of their correspondence with that grasp. Furthermore, this conception of constructivism makes it possible to talk of the approximation of personal constructs to reality. Having provided a conception of correspondence, not only have we avoided instrumentalism, but also talking of approximation makes more sense. This is because our best theories provide an account of the world with reference to which we an talk of more or less approximate personal constructs. In this sense, more valid personal constructs are those that are more approximate, that is, more correspondent to the reality.

Kelly (1955) put forward a psychological metatheory which he called "constructive alternativism," in an attempt to open a new way of accounting for psychological processes in the then predominant behaviorism. To understand Kelly's constructivism we need to trace its origins in the thoughts of preceding thinkers. Hogan (1976) held that the originality of Kelly's theory makes this task difficult (p. 116). However, it is clear that there were some sources of inspiration in the development of basic Kellian concepts. These sources include the Hegelian dialectic, phenomenology, and in particular, Dewey's pragmatism. Hegel's influence is clear in Kelly's notion of bipolar constructs which have a contrastive nature; "stated in Hegelian terms, … no thesis is complete without its antithesis" (Kelly, 1969, p. 169). The inspiration from phenomenology appeared in the notion of personal meanings and interpretations of the world (see Warren, 1985; Silvern, 1990). Dewey's influence was fundamental in granting "anticipation" a pivotal position in Kelly's epistemology. Hence, Kelly (1955) asserted, "Dewey, whose philosophy and psychology can be read between many of the lines of the psychology of personal constructs, envisioned the universe as an ongoing affair which had to be anticipated to be understood' (p. 154). Kelly,

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however, went beyond that and considered anticipation as an orientation in people's whole life, rather than merely in understanding events (p. 159; see also Novak, 1983).

Some Kellians have considered Kelly's constructivism in congruence with recent developments in epistemology. What is essential for this paper is the compatibility of Kelly's theory with realism in its contemporary developments. In what follows, I will first briefly deal with epistemological characteristics of constructivism in general and Kelly's constructivism in particular. Then I will show that Kelly's epistemological view explicitly rejects at least some forms of realism. Further, it will be argued that Kelly's constructivism has approached instrumentalism, due to the influences of Dewey, leading it to suffer from epistemological problems. Finally, I will try to show that a Kellian kind of constructivism is compatible with a sophisticated form of realism.

Before going into the discussion, it would be useful to acknowledge that various attempts have been made to show that Kelly's view is in congruence with contemporary developments in epistemology. Some have concentrated on Kelly's rejection of the positivistic doctrine of separating fact and theory. These authors have tried to show that Kelly's view possesses the strengths of what are now called postpostivist views. Mancini and Semerari (1988), for instance, suggested that Kelly is comparable to Popper in taking a constructive position about knowledge, in that Kelly did in psychology what Popper did in epistemology. According to Mancini and Semerari, both Kelly and Popper held that our observations are shaped by our theories, rather than vice versa. Furthermore, they both believed that knowledge is not the product of recurrent experience; it is , rather, a process due to the knowing system generating better and more predictive constructs when the old ones are "falsified" (in Popper's terms) or "invalidated" (in Kelly's terms). Similarly, Rowe (1993) suggested that Kelly and Popper are comparable in that both see dismissing incoherence as the way toward validating constructs. In other words, as Popper stated, because of the problems associated with verificationism, direct validation of hypotheses or constructs is not possible. Instead, one should appeal to an indirect way of validation by means of dismissing the incoherence of constructs rather than proving their coherence. In keeping with these positions, Neimeyer (1993) held that personal construct theory is compatible with a postmodern rejection of a positivist view of objectivity, and knowledge claims are excluded on the basis of their internal coherence, utility, and "fit" with social consensus.

In the same vein, in criticizing naïve conceptions of correspondence theory, Tschudi (1983) explained that fact and theory are not separable and, hence, that objective verification is not possible.

On the other hand, W. G. Warren (1985) maintained that personal construct theory is compatible with realism. Even though he argued that Kelly rejected ontological realism, W. G. Warren (1991)[1] contends that Kelly's view is in congruence with epistemological realism which deals with the validity of ideas. However, I will argue in what follows that early pragmatists' influence on personal construct theory has left it open to the charge of instrumentalism. Contrary to W. G. Warren's argument, this makes compatibility of Kelly's constructivism and epistemological realism difficult. However, I will show that personal construct theory is not incompatible with a sophisticated conception of realism and correspondence theory of truth. Personal construct theory needs to incorporate this realistic element to avoid instrumentalism as new conceptions of pragmatism, such as Quine's (1960), have embraced such a realism.

Let me explain briefly some "isms" with which I will deal during the discussion. Instrumentalism is a view in epistemology which emphasizes the workability of ideas and theories. According to this view, the mind is active rather than passive, and accordingly an idea is a plan that is projected on the world. Epistemologically speaking, instrumentalism holds that workability of theories constitutes their truth. That is to say, a workable theory is true because it works.

A further view is naïve realism. According to this approach, the mind is passive so that ideas can be seen as photographs of things. The epistemology of this kind of realism holds that a true idea or theory is one that corresponds to the objective reality in the world. On the other hand, what I will call sophisticated realism is a realistic view which is not inconsistent with holding the mind as an active and dynamic system. This kind of realism also sees truth as a matter of correspondence between ideas and reality. However, contrary to the naïve realism, it is denied that correspondence could be held between ideas and facts themselves. Rather, because the mind has no direct access to the reality, the

[1] I owe this point to the editorial comments on this paper.

correspondence can occur only between ideas and purported facts. However, sophisticated realism is different from idealism on the grounds that the former takes evidence into account in preferring one grasp of reality to another. Nevertheless, the theory of evidence and the theory of truth are kept apart. Evidence does not indicate correspondence; it is only a way for preferring a theory to another. A preferred theory provides a ground for talking of correspondence between our ideas and facts purported by the theory. Whenever the theory's grasp of reality is changed by further evidence, new sets of correspondence will occur.

Constructive Epistemology

According to constructivism, in general, one has no direct access to facts. Instead, people's constructs always mediate between them and reality. To put it another way, a common feature of constructivism is its emphasis on the role the mind plays in our experiences. The mind is not a passive mirror of the world; rather, it is an active source in shaping our perceptions, conceptions, feelings, and so forth. In this, constructivism is in sharp contrast to positivism according to which facts are in our direct access. Thus, as constructivist, Kelly parted with positivism even though he asserted that he adopted "the abstract features of Comte's system' (1995, p. 17). In fact, one of the important contributions of personal construct theory to psychology is that it rejects the positivistic conception of objectivity and theory-free facts.

Fransella (1988) maintained that personal construct theory has been radical in challenging the Newtonian conception of science in psychology since 1955 (p. 30). According to Fransella, Kelly questioned the Newtonian view by showing that *truth* is not achieved simply by accumulating bits of facts; a view that he called "accumulative fragmentalism." Similarly, W. G. Warren (1985) argued that Kelly's matatheory is in congruence with major developments in epistemology in rejecting positivism. Of the most importance is the notion of theory-ladenness of observations and facts which is evident in the role that models and paradigms play in science (Kuhn, 1970), as well as in social and political aspects of our lives (Feyerabend, 1975). According to Feyerabend, theoretical anarchism, rather than law and order, is the key notion to be used in understanding scientific work. He argued that there is no such thing as the scientific method, and maintained that in science "anything goes." What Feyerabend tried to show was that social and cultural influences, rather than a built-in method, are the most significant sources of scientific work. In a similar way, Kelly held that people, as scientists, construe or put an interpretation on what they want to study. That is to say, there is no construction-free observation or behavior. Psychologists' behavior, as well as their subjects', is construction-laden. What is particularly important for Kelly are the personal, rather than cultural, constructions of the scientist. Parallel to Feyerabend's theoretical anarchism, to put it in McWilliams's (1988) terms, one might talk of "personal anarchism" in Kelly's theory. This indicates that Kelly has tried to deinstitutionalise the person's psychological processes. As a result, what is going on the person is a constant revision of constructions and meanings (see also Rowe, 1993, pp. 12-3).

There are different accounts of the mind's activity. Kant, for instance, explained it in terms of some a priori forms that the mind imposes upon the content of experiences. That is to say, categories, such as *time*, *space*, and *causality* are necessarily prior to sensing data. Furthermore, on the Kantian account, the a priori forms are stable and universal. As a constructivist, Piaget (1972), contrary to Kant, held that constructs are not a priori and stable. Rather, he considered time, causality, and so on, as constructs which develop out of the child's experience. While there are similarities between Piaget's constructivism and that of Kelly, some believe that there are considerable differences between them. P. Salmon (1970), for instance, maintained that a kind of absolute view of truth is involved in Piaget's constructivism (p. 214). This is because, according to P. Salmon, Piaget assumed that we can represent the outer reality throught two halves of the adaptation process, namely assimilation and accommodation. In contrast, personal constructivists deny such an access to the reality and see our grasp of it in constant revision. Admitting some ambiguity in Piaget's experessions, Soffer (1993) defended Piaget against this accusation (p. 67). According to him, Piaget, in fact, held constructs to be personal that happen to be similar in people in general. Yet, Soffer admitted that Piaget's constructivism deals with superordinate constructs in an abstract manner, while Kelly's concern subordinate levels and personal aspects of constructs (pp. 74-75).

Not only is it essential in Kelly's constructivism that it is personal, but also "alternativism" is a pivotal point in his constructivism. Hence, Kelly (1963) stated, "There are *always* some *alternative*

constructs available to choose among in dealing with the world" (p. 15, emphasis added). In this connection, he explained:

> Like other theories, the psychology of personal constructs is the implementation of a philosophical assumption. In this case, the assumption is that whatever nature may be, or howsoever the quest for truth will turn out in the end, the events we face today are subject to as great a variety of constructions as our wits will enable us to contrive… all our present perceptions are open to question and reconsideration and it does broadly suggest that even the most obvious occurrences of everyday life might appear utterly transformed if we were inventive enough to construe them differently (1970, p. 1).

Alternativism is quite clear in Kelly's expression that, being "inventive enough," one can "construe" events and reality differently. Accordingly, a person's constructs refer to certain interpretations of events which could be the subject of interpretations of a different kind. This reliance on interpretation has led some (e.g., Silvern, 1990; Taylor, 1990) to understand Kelly as belonging to the hermeneutic tradition. According to hermeneutics, the meaning of one's behavior is relative to one's interpretations' in other words, one's behavior is international. Taylor maintained that Kelly's fundamental postulate is hermeneutical in essence. The postulate reads, "A person's processes are psychologically channelized by the ways in which he anticipates events" (Kelly, 1963, p. 46). For Taylor, the phrase "anticipates events" indicates that intentinality is involved in the person's psychological processes.

Similarly, Viney (1992), who has applied personal construct psychology (PCP) in psychotherapy, explained that one of the assumptions of PCP concerns the importance of stories (p. 298). Accordingly, scientists tell stories, as well as the people who they study. She held that investigation in accordance with PCP requires us to consider both researchers and subjects as people who "construe and create meaning, with specific meaning in mind." As this assumption indicates, people's behavior is international. In congruence with hermeneutics, this assumption shows that personal construct theorists hold the person's activity as a text or a story, or more precisely, they consider one's activity as one's enactments of one's story. Hence, both personal construct psychologists and those who hold a hermeneutic approach assume that we can make people's behavior intelligible by appealing to the underlying meanings or constructions on the ground that their behavior is a function of these meanings or constructions.

Where does PCP part with hermeneutics? Partly, this is in the ways of validating epistemic virtues of personal interpretations and constructs. According to PCP, the two main criteria for validating a construct are, first, its workability and, second, its coherence with the existing constructions of the person or the society. In this, Neimeyer (1993) explained:

> The viability of any given construction is a function of its *consequences* for the individual or group that provisionally adopts it … as well as its overall coherence with the larger system of personally or socially held beliefs into which it is incorporated (p. 222, emphasis added).

Workability of a construct, namely the consequences that it brings about, and its holistic characteristic, namely its coherence with other constructions, are what determine the validity of constructs. (Neimeyer's position here is not inconsistent with his emphasis on dismissing incoherence rather than directly proving coherence, as is explained in the next section). The hermeneutic view equally emphasizes the notion of coherence as, according to it, understanding part of a text is not possible without taking into account its relevance to the text as a whole. Similarly, this view requires that understanding people's behavior is not possible without putting it in the context of their overall interpretation system. However, so far as the criterion of consequences or workability of personal interpretations and constructs is concerned, it is what distinguishes Kelly's constructive epistemology.

Constructive Epistemology and Realism

On an ontological level, Kelly holds that there is an independent reality, even though on an epistemological level, he believes that we have access to that reality only through our constructs. This conception is in line with Kant's critical philosophy which distinguishes between noumenal and phenomenal realities. That is why some (e.g., Mahony, 1988; Neimeyer, 1993) talk of Kelly as a 'critical realist' or a "critical constructivist." To say that Kelly is a critical realist is not inconsistent with his rejection of what he called realism. By realism he meant those reductive views that do not consider the person as a person; rather they reduce the person

to some of his aspects. Referring to the necessity of "anticipation" for understanding events, he stated:

> Such thinking stands in sharp contrast to the kind of realism which insists that if a thing is a spade, it is nothing but a spade: if a person is a schizophrenic, he is nothing but a schizophrenic; if the heart is a physiological organ, it is nothing but a physiological organ, and it cannot be construed as a psychological organ; if an event is a catastrophe, it is nothing but a catastrophe, if a man is an enemy, he is nothing but an enemy (1963, p. 154).

According to Kelly, the universe is an ongoing affair that we understand by anticipating it. He held this point to be against the above-mentioned realism on the grounds that there could be different ways of anticipating the same event. What is involved in this conception of realism is a way of using constructs which he called "pre-emptive," for which he held a limited value. In this manner of dealing with constructs, a person preempts given elements for exclusive membership of a construct. For instance, a person may hold, "Anything which is a ball can be nothing but a ball." Still, there is a further manner of dealing with constructs for which constructive alternativism holds only a limited value, namely the so-called "constellatory construct." In this manner, a person admits the elements as members of other constructs but in a dogmatic way. This kind of construct is a characteristic of stereotyped and dogmatic thinking. Accordingly, "Anything which is a ball must also be something which will bounce" (1963, pp. 153-155).

The preferred type of construct for personal construct theory is "propositional construct." The elements of this construct take part in other constructs. Here, the example of ball is this "Any roundish mass may be considered, among other things, as a ball" (p. 155). To say that propositional constructs are preferred, does not indicate that a person must not appeal to the other two kinds of constructs at all. Rather, for practical reasons, it might be necessary for a person to construe something temporarily in a preemptive or constellatory fashion. In Kelly's example, when one is playing baseball, one has to consider the ball as nothing but a ball; otherwise one cannot take part in the game. Nevertheless, it must be possible for the person to change his position on the dimension of the construct "pre-emptive and constellatory versus propositional" from the first pole to the second, namely propositional construct. Otherwise, it will not be possible to anticipate events in more fruitful ways. Accordingly, constructive epistemology rejects realism on the ground that it prevents us from using propositional constructs.

Criticizing clinical derivatives of realsim, Neimeyer (1993) considered their inadequacy to be due to their reliance on the correspondence theory of truth. Referring to these conceptions of mental health, he stated:

> This implies a correspondence theory of truth, which holds that the validity of one's belief systems is determined by their degree of "match" with the real world, or at least with the "facts" as provided by one's senses (p. 222).

However, he held that in the postmodern era, the important feature of which is the pluralism of beliefs, it is not defensible to talk of "reality contact" as the criterion of mental health. Postmodern psychotherapies, namely "constructivist therapies [,] are united in their rejection of a correspondence theory of truth and its corollary assumption that any beliefs that fail to correspond to objective reality are, by definition, dysfunctional."

Constructive Epistemology and Instrumentalism

An important advantage of Kelly's constructive epistemology lies in its rejection of positivism. As explained above, this epistemology denies any direct relationship to reality and sees reality as accessible only by means of "versions" of it called constructs. However, if we are not cautious in rejecting realism and if we do not keep a sophisticated type of realism (for which I will argue in the last section of this paper), we might fall into the trap of instrumentalism. I am going to argue in what follows that Kelly's constructive epistemology has approached instrumentalism.

An instrumentalist explains the significance of theoretical terms purely in terms of prediction. Accordingly, a scientific theory is merely a set of rules that makes observable prediction possible. In this sense, the issue is whether a scientific theory is adequate or inadequate, rather than being true or false (see Suppe, 1977, p. 29). Recent developments in epistemology have shown that instrumentalism is not an adequate position. A theory with ability to predict and control might simply be false as was the case, for instance, in Ptolemiec theory. Criticizing Dewey's view, Russel (1951) stated:

> Dr. Dewey and I were once in the town of Changsha during an eclipse of the moon; following immemorial custom, blind men were beating gongs to frighten the heavenly dog, whose attempt to swallow the moon is the cause of the eclipses. Throughout thousands of years, this practice of beating gongs has never failed to be successful; every eclipse has come to an end after a sufficient prolongation of the din. (p. 152).

Successes of a wrong theory might be due to what Rescher (1987) called nature's "error tolerance" (p. 75). That is to say, a theory might be successful in predicting and controlling events due to its being in the threshold of nature's tolerance, rather than being true. One might apply the flat-theory of the earth in building making, with successful predications and controls. The latter work not because of the truth of the theory, rather because small flat-sizes are tolerable compared with the curvature of the earth. Hence, there will be no differences in considering the earth as being flat or curved. Furthermore, a theory's success might be ambiguous. Duhem made it clear that when a number of theories and related auxiliary hypotheses predict an event unsuccessfully, this falsification is only ambiguously attributable to the whole bound of theories and related auxiliary hypotheses. Rescher added to this point that we deal with the same kind of ambiguity where a number of theories and related auxiliary hypotheses are successful in a predication (1987, p. 71) . It follows that such a success does not indicate the truth of a scientific theory due to the ambiguity concerned.

A clear instance of instrumentalist constructivsm appeared in Van Fraassen's (1980) view. In what he called "constructive empiricism," Van Fraassen took a position that relied mainly on "empirical adequacy" as the criterion for epistemic virtue of theories. In this, he asserted, "I use the adjective 'constructive' to indicate my view that scientific activity is one of construction rather than discovery: construction of models that must be adequate to the phenomena, and not discovery of truth concerning the unobservable" (p. 5). In advancing constructs to explain phenomena, he suggested using "contrast sets" as a pragmatic requirement of explanation. Contrast sets mean that in explaining why "A did B in circumstances C," we need to ask why did A, rather than someone else, do B. Or why did A do B, rather than something else. Or why did A do B in circumstances C, rather than circumstances of a different kind. (For criticisms of Van Fraassen's view, see, among others, Churchland, 1989; Rescher, 1987; and Salmon and Kitcher, 1989).

While there are some similarities between Kelly's constructivism and Van Fraassen's, the former does not embrace instrumentalism as widely as the latter does. Somewhat similar to Van Fraassen, Kelly suggested a contrastive nature for constructs, and a way for validating constructs, partly in terms of their consequences, which Van Fraassen called empirical adequacy. However, Kelly had a notion of truth in his theory which separated him from Van Fraassenian type of constructivism. Connected to this notion of truth, Kelly (1963) spoke of "successive approximations" to the reality:

> The truths the theories attempt to fix are successive approximations to the larger scheme of things which slowly they help to unfold. Thus a theory is a tentative expression of what man has seen as a regular pattern in the surging events of life. But the theory, being itself an event, can in turn be subsumed by another theory, or by a superordinate part of itself, and that in turn can be subsumed by another. A theory is thus bound only by the construction system of which it is understood to be a part – and, of course, the binding is only temporary, lasting only as long as that particular superordinate system is employed (p. 19).

Because Kelly considered a theroy as being capable of capturing "the larger scheme of things," we cannot say that his view is purely instrumentalist. However, the profound influence of early pragmatists, and in particular Dewey's instrumentalism, on Kelly prepared him to approach instrumentalism. Even though early pragmatists had a notion of truth which separates them from instrumentalists, they shared with instrumentalists a definition of truth in terms of usefulness and workability of theories. In other words, according to this view, a theory is true because it works, rather than vice versa (see also Walker & Evers, 1988). However, as explained above, the workability of theory does not constitute its truth on the ground that there could be reasons, other than its being true, for a theory to work.

The influence of early pragmatists, particularly Dewey's instrumentalism, on Kelly's metatheory is clear. In his move from pragmatism to instrumentalism, Dewey considered a theory as a "plan of action" which will be regarded as useful if

it is successful in prediction and control. For Kelly, likewise, a construction is a plan of action. In this, Adams-Webber and Mancuso (1983) asserted, "Thus, according to Kelly's pragmatic logic, a construction is essentially a plan for action. As such, it is neither true nor flase, but rather more or less useful as an axis of reference for charting alternative courses of behavior" (pp. 7-8). This instrumentalistic characteristic of constructs clearly shows that the notion of truth is not essential for a construct system. What about the characteristic of coherence of a construct system? Can it be considered as a criterion of truth of the construct system? Undoubtedly, coherence is important for Kelly's view. Complicated kinds of coherence are explained in the fragmentation corollary in terms of which two apparently contradictory components at a level might turn out to be compatible at a higher level. However, as will be explained in the last section, coherence belongs to the theory of evidence rather than the theory of truth which deals with correspondence. It suffices to maintain here that while an incoherent system cannot be true, a coherent system is not necessarily true. Hence, the fragmentation corollary can help us in dismissing incoherent systems. However, it cannot show that a system is true on the grounds that it is coherent.

Kelly's adoption of another pragmatist's view, namely Pierce, in what he called "abduction" is also worth mentioning (see Warren, 1985, p. 255). Abduction, different from induction and deduction, indicates that if considering a hypothesis as being true renders a surprising fact predictable, then it will be reasonable to take the hypothesis as being true. Accordingly, if it turns out that a theory does not account for new facts any more, then we will need a new hypothesis to account for the new facts as well as the previously known facts. This is congruent with what Kelly (1970) called "reconstruction" to which he held everything to be always subject (p. 1).

Because of the influence of instrumentalism, Kelly gave an important place to prediction and control in both his metatheory and theory. That is why he considered control and prediction as the aim of science, where he stated, "As a scientist, man seeks to predict, and thus control, the course of events. It follows, then, that the constructs which he formulates are intended to aid him in his predictive efforts" (1963, p. 12). Also, that is the reason why prediction and control has such a predominant position in his theory that "a construct is tested in terms of its predictive efficiency" (p. 12) and that constructs acts as "controls that one places upon life – the life within him as well as the life which is external to him" (p. 126).

Insofar as Kelly's constructive epistemology adopted the early pragmatists' notion of workability of theories, it approached instrumentalism and was made vulnerable to the same criticisms. A construct of construct system might be workable because of its being in the threshold of nature's or a social system's error tolerance rather than because of its being valid or true. Clever thieves' construction systems might work for a long time because of their being in the error tolerance threshold of society's law system. In other words, they have learned how to use their constructs safely.

Referring to the logical problems associated with direct confirmation explained by Popper (1963), Neimeyer (1993) suggested that it is not inconsistent with personal construct theory to account for disconfirmation of constructs. Distinguishing radical and personal constructivist approaches, Neimeyer stated that personal construct theory has less difficulties in accounting for invalidation of constructs than do radical constructivist views. This is because, according to Neimeyer, while radical approaches hold reality to be a function of linguistic matters, personal construct theory accepts ontological realism (p. 230). He is undoubtedly right in saying that personal construct theory faces less difficulties compared with radical views. However, ontological realism is not enough for escaping instrumentalism, as I will explain it in the next section. We also need to explain why it that a construct does not work, or how it is that the world says no to a construct. Is this a matter of correspondence or something else?

Concerning the other component of Kelly's criterion, namely coherence, it is clear that it is not, in itself, a sufficient condition for a construct system to be true. A fiction might have a coherent structure while it is not true. This is, perhaps, the reason why some Kellians prefer to talk of incoherence as indicative of falsity rather than of coherence as a criterion of truth. Adopting Popper, Rowe (1993) maintained: "Clarity and distinctness are not criteria of truth, but such things as obscurity and confusion indicate error. Similarly, coherence does not establish truth, but incoherence and inconsistency establish falsehood" (p. 21). On the other hand, Neimeyer holds an expanded view of coherence according to which the validation of constructs is a matter of coherence between the person's more abstract and more concrete constructions. In other words, "we ourselves define the 'observational'

criteria by which our constructions will be validated" (Emphasis in the original).[1]

Workability and coherence combined go a step further in establishing the viability of construct. Accordingly, of two workable constructs, the one which is not enough for escaping instrumentalism. This is because we have chosen our previously validated constructs, with which we seek coherence for a new construct, on their workability. That is to say, workability has a primacy talk of coherence, while it is possible to grasp some workable constructs without holding coherence. The latter is clear in the case of the first established constructs of a construct system. This renders coherence reliant on workability. If the latter does not save us against instrumentalism, then the former will not either.

Sophisticated Realism and Constructivism

I am now going to argue that Kelly's constructivism is not incompatible with a sophisticated kind of correspondence theory of truth and realism. Rather, Kelly's epistemology needs such a realistic component to avoid instrumentalism.

There has been an important epistemological development in recent times which has derived from a sophisticated realism. Popper (1959), Quine (1960), Lakatos (1974), Hooker (1974), Bahskar (1975), and Churchland (1989), among others, have supported such a realistic position in somewhat different ways. Briefly, some tenets of sophisticated realism, in general, are (a) there is a real world independent of our theorizing, (b) our theories can account for this reality, (c) fact – theory distinctions are not acceptable, (d) any simple correspondence between our theories and reality is rejected, and (e) our true sentences correspond to the reality of the world captured by our best theories.

Kelly's constructivism is compatible with this sophisticated realism. For showing this compatibility, however, I do not think that we can appeal to arguments of the kind W. G. Warren (1985) suggested. From an epistemological perspective, W. G. Warren stated, realism is not incompatible with Kelly's view. This is because, according to him, Kelly saw no problem in accepting independent reality of the world which we try to approach by our ontological realism, which Kelly admitted. However, as Tarski (1944) showed, we cannot account for epistemological realism merely by appealing to ontological realism. The belief that there is a real world does not make it clear how we can know that we are aproaching it by our conceptions of the real world, and in fact in what sense we hold that our conceptions or experiences are realistic. In other words, what we need to deal with is an epistemological question in providing a more adequate criterion of truth and / or approaching it. A mere coherence theory of truth or a combination of such a conception with an idea of workability is not enough for escaping instrumentalism as explained above. Normally, in this case, realistic views appeal to the correspondence theory of truth. This criterion is not necessarily of a naïve kind that seeks a correspondence between statements, on the one hand, and facts, on the other. This would be possible only in embracing an extremely passive, pictorial theory of mind. Contrary to this naïve conception, Tarski suggested that for holding correspondence, we need a metalanguage, a language in the context of which we can talk about language. In such as context, correspondence occurs between a statement and a purported fact. Hence, there is no problem in talking of correspondence if we say: "Gras ist grun" is true if and only if grass is green. Here, the quotation in German is a name of a statement which corresponds to a purported fact (grass is green) in the context of a metalanguage, namely English. We use the predicated is true as a metalinguistic device of disquotation. Even if we assert the qotation in English, we must distinguish the levels of language and metalanguage. Hence, if we say: "Grass is green" is true if and only if grass is green. Here also the quotation belongs to the level of metalanguage. This theory of correspondence is called a "disquotational" theory of truth because correspondence occurs through the disquotation of a statement in the context of a metalanguage which includes the content of the statement as a purported fact. In this way, this correspondence theory of truth avoids the problem associated with naïve realism, namely the impossibility of correspondence between a statement and a fact. At the same time, this theory avoids the problem associated with coherence theories of truth, namely the possibility of the whole coherent system being untrue as is the case in a fiction. It is worth saying that this correspondence theory of truth cannot be reduced to a coherence theory. What is involved in coherence is a matter of fitness and match. In other words, two components of a coherent system might be quite different things even though they are not contradictory, and there exists a match between them. In correspondence,

[1] I have taken this notion from Neimeyer's comments on this paper.

however, an identity is involved in the two things concerned as is the case in two statements stated in different languages but which have the same content, as in two synonyms.

In accounting for the compatibility of Kelly's constructivism and realism, it is important, first, to note that the realism which is incompatible with his constructivism is either a radical reductionism explained above (pp. 10-11), or a naïve kind of realism which suggests a copy correspondence theory of truth. By its nature, this kind of constructivism rejects radical reductionism because it confines us to a narrow conception of objectivity which reduces the person to its organism. Also, the naïve conception of correspondence theory of truth is incompatible with Kelly's constructivism because that conception ignores the "proactivity" (Neimeyer & Feixas, 1990, p. 7) of the mind that this constructivism requires. Even though Neimeyer (1993) undermines the correspondence theory of truth in general, I think what he means is the naïve conception of correspondence. He does not mention whether there is a possible unproblematic conception of correspondence. Because the notion of correspondence is essential for realistic views, we need to distinguish sophisticated and naïve conceptions of correspondence. On the other hand, as explained above, it is important to note that correspondence is not reducible to coherence, which might be held in the whole system of a theory by means of fitness among its different components.

A sophisticated conception of realism and a correspondence theory of truth is not incompatible with Kelly's constructivism. Some new conceptions of pragmatism have provided the suitable grounds for resolving possible incompatibilities. Quine (1960) suggested a neopragmatism that "Rejects Dewey's instrumentalism and theory of truth" (Walker & Evers, 1984, p. 23) and embraces realism. We can replace the reliance of Kelly's constructivism on early pragmatism with this new conception of pragmatism. This view has incorporated the pragmatist notion of coherence along with the realist notion of correspondence. It, however, rejects workability of theories as indicating their truth.

As Quine (1960) made it clear, for providing an adequate notion of truth, we need to distinguish our theory of evidence and theory of truth. Both workability and coherence constitute a theory of evidence instead of dealing with truth. Referring to this point, Evers (1987) asserted:

> Once the theory of evidence has done its work in adjudicating the merits of rival global theories, we can then trun to the resulting preferred theory (if such there be) and use its internal structure, its own theoretical resources, to determine the connections between sentences and the world; to determine, in short, the details of correspondence truth (p. 11).

Accordingly, we choose a theory among the rival theories because of its "empirical adequacy" in prediction and control, as well as its "superempirical virtues," such as simplicity, coherence, and explanatory power. All these elements belong to the realm of theory of evidence. That is to say, any theory for which there are more pieces of evidence has as better chance of grasping reality. To call the mentioned elements evidence helps us avoid instrumentalism. For the instrumentalist tendency of early pragmatists, a theory is true because it works, rather than vice versa. In contrast, according to realism, the workability of a theory is a piece of evidence for its truth. In the long run, successful theory is true because of its grasp of reality, instead of being true because of its being successful. While we can say that if a theory works, it has necessarily got a real grasp of reality.

At the next step, namely when we deal with the theory of truth, we can use the chosen theory to maintain what exists in the world and to what our true sentences correspond. In other words, our best theory is a metalanguage that has a grasp of reality. In the context of this metalanguage, we can talk of correspondence of our sentences to this grasp. One might say that this notion of truth is intratheoretic and subjective while we need an objective view of truth. If by objective truth one means a correspondence between our statements and facts, this obviously leads to a naïve conception of realism which fails to account for such a correspondence. Correspondence is an intratheoretic matter given that facts are theory-laden. At the same time, this does not indicate a merely subjective view on the ground that our best theory is one which is supported by the most pieces of existing evidence. An advantage of this view is that in facing persistent counter-evidence (in the long run, according to Lakatos), the theory's grasp of reality undergoes change and the previous correspondences no longer hold. That is to say, this view accounts for approaching reality. The process of approaching is the constant correction of the theory's grasp. However, in the case of workability thesis, when a theory works, this

amounts to saying that it is true. Neglecting the point that this conception cannot account for a correspondence between statements and facts, when a theory no longer works, we have to say that what once was true is not true now. Whereas, a more defensible position is what the realist view maintains, namely that the theory was not true even when it was working: that is to say, it had no grasp of reality. Accordingly, it would be reasonable to evaluate a previous theory's grasp of reality in comparison with existing theories and in the light of existing evidence, and in fact this is the way realists accounts for the progress in science. There would be no problem in assuming that an existing theory might, in turn, be found to be untrue in some respects in the future. Whenever a theory's grasp of reality, and hence its suggested correspondences between the statements and the purported facts, undergo change, a closer conception to the reality and a stronger theory of truth with a further set of correspondences could be held, provided that the new theory has more pieces of evidence.

As is clear, this conception is different from the traditional naïve realism as well as instrumentalism. It is different from the traditional naïve realism because the latter relies principally on correspondence rather than coherence as well. Furthermore, naïve realism indicates a direct correspondence of ideas to things and events. As explained above, because of the problems associated with this conception of correspondence, Tarski (1944) suggested that we can hold correspondence only when we account for it in terms of a metalanguage. Quine has absorbed this Tarskian notion in his suggestion because, according to it, correspondence is between our true sentences and the account that our best theories suggest of the world. Quine's suggestion is also clearly different from instrumentalism which relies solely on the workability of theories along with a restricted conception of coherence that excludes correspondence.

Conclusion

Kelly's constructive epistemology needs to transcend its background of instrumentalism arising from Dewey's influence. What enables us to well avoid instrumentalism is a notion of truth that incorporates both coherence and correspondence. If we were to abandon coherence, we would have to embrace the naïve conception of realism, while by abandonning correspondence we would have to embrace instrumentalism because we would have to consider the workability of a theory or a construction system and its coherence with previously successful ones as constituting the turth of a given theory or construction system.

Such a realistic constructivism privides a more satisfactory conception of personal constructs. According to this view, we no longer think that personal constructs are either true nor false, rather they are divided into true and false in accordance with the grasp of reality reflected in our best theories. In other words, having provided a theory of truth, we are ready to compare different personal constructs with the grasp of reality involved in the theory in terms of their correspondence with that grasp. Furthermore, this conception of constructivism makes it possible to talk of the approximation of personal constructs to reality. Having provided a conception of correspondence, not only have we avoided instrumentalism, but also talking of approximation makes more sense. This is because our best theories provide an account of the world with reference to which we an talk of more or less approximate personal constructs. In this sense, more valid personal constructs are those that are more approximate, that is, more correspondent to the reality.

However, the division of personal constructs into true and false does not imply a fixed and static view of personal constructs, nor does it fail to take the individual's personal constructs seriously. This does not imply a static view because parallel to the developments of or best theories, the truth or falsehood of personal constructs might be altered. And, in fact, only such a dynamic view of truth is consistent with the sophisticated relism as explained above.

Nor does this position imply that clinicians must impose their own conceptions on the individual's constructs and not care about them. Clinicians who work according to a highly sophisticated theory must always expect to face counter-evidence and be prepared to modify their theories and their underlying grasp of reality. And an important source of this kind of counter-evidence for the therapist's theory is the client. It is quite consistent with the sophisticated realism to expect that the therapist's theory is altered or falsified by means of some new evidence from the client. However, according to sophisticated realism, the therapist who is equipped with a strong theory, or rather with our best theory, is in a better position to evaluate the client's personal constructs in terms of their truth or falsehood by reference to the theory's grasp of

reality, the reality of the human as well as the physical world.

One might say that the reality for the client might be different from the reality for the therapist and, consequently, the client is the person who can decide what enables him or her to adjust to the reality concerned (see Winter, 1992). This can be true only when the therapist's theory is so uncomprehensive that it cannot interpret the client's possible grasps of reality or predict what consequences they might face. This is particularly so because, according to sophisticated realism, therapy is not merely a matter of adjustment. It is, in fact, instrumentalism that equates therapy and adjustment because what is vital for the instrumentalist is the workability of constructs. However, according to sophisticated realism, workability is not enough for evaluating the adequacy of personal constructs as it is clear in what psychoanalysis calls "defence mechanisms." These mechanisms are, in fact, workable constructs that enable the person to adjust even though they might work only temporarily. Sophisticated realism, on the other hand, requires that we evaluate personal constructs in terms of their correspondence with the grasp of reality involved in our adequate or best theories. That is to say, the personal constructs in terms of their correspondence with the grasp of reality involved in our adequate or best theories. That is to say, the personal constructs will be evaluated in terms of their degree of truth or falsehood and will be altered accordingly.

One might think that, in this way, that the therapist's underlying theory will be persistent against counter – evidence from the client and could not be easily changed. Has not this always been the case in other branches of science as well? It has been a familiar observation in the history of science that the "hare core" of an adequate theory, to put it in Lakatos's terms, persists against counter-evidence. Only when such a theory faces a large number of pieces of counter-evidence and a more adequate rival theory which can account for the counter-evidence, are we in a position to leave the previous theroy and embrace the new one. Why should we think that psychology and its related fields such as psychotherapy are exceptions?

As has been clear by now, realistic constructivism will have different therapeutic and educational implications. By using the correspondence rule that realistic constructivism suggests, a therapist or a teacher will have more active and more difinite roles to play in altering the person's false constructs. This is because, according to the conception of correspondence, only those personal conceptions or constructs which are valid, defensible, and reliable correspond to reality. As a consequence, the issue in psychotherapy, as well as education, will be whether clients' or the teacher will try to provide necessary situations for showing possible misrepresentations involved in the person's constructs. In effect, therapists or teachers prepare suitable grounds on which their clients or students can change their constructs to indicate correct representations of, or correspond to, reality. This reality, as well as correspondence to it, is but a dynamic parallel to the development of our best theories.

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