More on Polanyi and Tillich on Participative Knowing: A Discussion

ABSTRACT Key Words: post-critical theology, Michael Polanyi and Paul Tillich, Merleau-Ponty, William Poteat, mindbody, critical and post-critical thought. This discussion, featuring short comments by R. Melvin Keiser, Durwood Foster, Richard Gelwick and Donald Musser, grew out of articles in TAD 35:3 (2008-2009) on connections and disconnections between the thought of Polanyi and Tillich (featuring essays by Foster and Gelwick with a response from Musser). Keiser raises questions about perspectives articulated in the earlier articles and Foster, Gelwick and Musser respond here.

Polanyi and Tillich’s Critical Difference

R. Melvin Keiser

I have been fascinated with the accounts in Tradition and Discovery (35:3 [2008-09]) of the meeting between Polanyi and Tillich in Berkeley in 1963, the consideration of Tillich’s Horkheimer festschrift paper (“Participation and Knowledge: Problems of an Ontology of Cognition”), and Polanyi’s critique of Tillich’s separation of science and religion (“Science and Religion: Separate Dimensions or Common Ground?”). I feel a family resemblance between Tillich and Polanyi and a profound debt of gratitude to each for nurturing, sustaining, and transforming my intellectual soul. The writers in TAD (Richard Gelwick, Durwood Foster, and Donald Musser) draw out these similarities in illuminating ways. There is, however, consternation over Polanyi’s criticism that Tillich divides science and religion into separate dimensions without a common ground. After all, Tillich stresses the presence of participation in all knowing so that no knowing is thoroughly detached. Nevertheless, it is worth asking how similar is Tillich’s participative knowing to what Polanyi means by “personal knowledge,” and how different?

Tillich has contributed significantly to affirming science’s freedom to pursue knowledge of the natural world, and religion to pursue its own goals without waiting for scientific confirmation, by insisting on this separation—like Descartes’ preserving truth of the subject mind while freeing science to pursue the object world. While Polanyi as scientist has enjoyed the freedom of scientific inquiry that Tillich’s separation endorses, Polanyi conceives all knowing, including scientific knowing, as having greater intimacy than Tillich’s participative knowing, and as arising from indwelling one reality common to all. The difference for Polanyi between types of knowing is in the different concerns and methods through which different aspects of the common lived world (to use Merleau-Ponty’s phenomenological phrase for Polanyi’s tacitly indwelt world) are integrated into emergent patterns and communally confirmed as true.

The clue to understanding Polanyi’s unhappiness with the gap he feels between Tillich’s participative knowing and his personal knowing is, I believe, in what Gelwick calls “a greater sense of distance between the knowing subject and its object” (17), and in Foster saying that Tillich “never grasped . . . the theory spelled
out in *The Tacit Dimension*” (27). Gelwick goes on to clarify his meaning by contrasting Tillich’s knowing, in Tillich’s own words, as having “separation, self-containment, and detachment” with Polanyi’s knowing as “tacitly internal” (17).

For all his talk of existential participation, and experience of depth and mystery (so important to my own intellectual development), Tillich never understood the tacit dimension and its creative integrations, arising from indwelling the world in our bodies, which become focal objects and patterns for explicit consciousness. This is because, in spite of all his similarities with Polanyi, he was a “critical,” not a “postcritical” thinker.

Fundamental to Tillich’s theological method of systematic thought is the great tradition of “critical” reason, which Polanyi so admired (see *PK* 265-266), but nevertheless saw as problematic and sought to transcend. Western dualism is the underpinning of Tillich’s whole enterprise. The dichotomy of essence and existence is basic to his system as he himself says (*Systematic Theology*, I:204, III:11-12). Functioning within this dualistic framework are the separatenesses of eternal/temporal (I:3), finite/infinite (I:191, 252), subject/object (I:9, 75-77, 108-109), and self/world (I:168-174).

To go to the heart of the matter, while a subject participates in knowing an object, the subject self retains its self-contained boundaries while participating in the world. The subject does not tacitly indwell the reality it knows but participates as an encapsulated self with a boundaried object.\(^1\) Indwelling involves an intimacy that Tillich rejects. Indwelling involves immersion in the mystery of the tacit dimension in which the self cannot distinguish itself from the whole of reality. As one with the whole of reality in which we dwell, for Polanyi, we attend from such depths to the objects and world we know explicitly. In volume three of *Systematic Theology*, Tillich explicitly rejects such intimacy when he denies to the self-world and self-God relationships what he calls “mutual immanence” (III.114).

Tillich conceives the subject/object split to be part of the human condition, not as Polanyi thinks of it as the humanly constructed Cartesian framework of modernity. For Tillich, there are moments of transcending this split in ecstasy, but these are episodic (III: 140). For Polanyi, the “from-to” structure of tacit knowing places us always beyond subject/object dualism. We are part of the whole of reality and draw from the whole as we attend “from” it to focus on something in particular and bring it into consciousness. Tillich’s “critical” view, on the other hand, would have us be a discrete self participating in relationship to realities discretely other.

This greater intimacy between knower and known in personal knowledge is implicit in the criticism of Tillich by Marjorie Grene and Phil Mullins, as Gelwick remarks (17), that Tillich’s “turn away from the Cartesian view of consciousness is not radical enough because it does not stress embodiment enough” (17). Recognizing kinship of Polanyi with Merleau-Ponty’s phenomenology, Gelwick sees such embodiment opening out into “a sense of reality that has an indeterminate and novel quality” (17). For Polanyi, I would say, we indwell the world as an indeterminate reality with a self who in its tacit creativity is as well an undeterminable mystery.

Tillich’s involvement with phenomenology is a further clue to his critical framework. He is the only Protestant theologian of his generation to embrace phenomenology (except H.R. Niebuhr at the end of his life).\(^2\) Tillich declares an intention at the outset to use phenomenology to begin each of the five parts of his *Systematic Theology*, although he does not carry through with it (I: 106-107). He takes up phenomenology,
however, from the early Husserl and defines it as concept-clarification: he uses it “to describe meanings” apart from their “validity” or the “reality to which they refer” (I: 106). He does not engage the bodily inhabiting of the reality of the lived world of the later Husserl whom Merleau-Ponty builds upon. Tillich, in fact, explicitly names his use as “critical phenomenology” (I: 107).

While the styles of writing of Polanyi and Merleau-Ponty are very different—Polanyi writing with the precision of a scientist and using experimental data as examples, and Merleau-Ponty writing with an evocative and disorienting involutedness (like Kierkegaard’s pseudonymous writing that throws readers back on to their own responsibility to make sense of something)—they complement one another with their post-Kantian thought. Polanyi attends from the tacitly known components of a phenomenon to the focal object as the tacitly integrated pattern of those tacitly grasped components. Merleau-Ponty attends from the environmental background of a phenomenon to the figure drawn out pre-reflectively into explicitness from that background. For both, there is the “from-to” movement of unconscious creativity emerging as the known, but coming from opposite directions. For Polanyi the “from” is from the components. For Merleau-Ponty, the “from” is from the context. For both, though stressed much more by Merleau-Ponty than Polanyi, this tacit or pre-reflective activity is bodily (as in the lived body, not the observed object body) and engaged in reality that is indeterminate and novel.

The different conceptions of faith that Foster identifies exemplifies Tillich’s dualism. In good Reformation and Neoorthodox style, the self is entirely passive to, rather than interacting with, God’s involvement in our lives. Quoting Tillich’s “faith is not a human act” (ST II:178), Foster says this contrasts with Polanyi’s understanding of faith for whom “willing commitment is integral to knowing the truth . . .” (34). Faith, for Polanyi, involves our interaction with, rather than passive being acted upon by, any reality. The trajectory of Polanyi’s thought, I would say, is that faith is a human act attending from the mystery of the tacit dimension, and is therefore simultaneously a divine act—if divinity is understood as the depth dimension of our tacit indwelling, from which we ultimately attend in all knowing and acting.

To use “God”-talk, I would say that the trajectory of defining faith as interactive, rather than action from outside upon a passive self, is to affirm that faith is both a divine and human act, the tacit indwelling in God, by God, and from God. The self, for Tillich, is, however, a discrete entity in which God grasps a person. There is no intermingling of the divine and human in faith. The divine is not a dimension within our being in the world that we draw upon and bring to expression, and therefore in mutual immanence with us, but the Ground of Being that knows itself through and shines through us—as Jesus definitively shows in being transparent to the Christ. If “mystical” means indwelling divine mystery in experience, then I would say (contrary to his worry that he would be condemned for his “mystical theory of knowledge” [25]) that Tillich’s theology does not go far enough—from “critical” participation into postcritical indwelling.

To clarify the “critical” difference of Tillich from Polanyi—which Polanyi registered—amidst many similarities, does not, for me at least, detract from the magnificence that is Tillich: his evocative and transformative use of existentialism in its stress on experience of meaninglessness, anxiety, depth, and mystery; old theological words revivified and new words coined; and a categorial, comprehensive, and architectonic grasp of western theological meaning. For this, I am grateful, even as I embrace Polanyi’s re-visioning of self and world, and long for a paradigmatic transformation in western thought into a postcritical world.
Endnotes

1 The observation I am making here about Tillich is similar to Stanley Hopper’s criticism of his mentor Martin Heidegger. While Heidegger intends to break the enchainedness of the principle of identity in western metaphysics by leaping into the abyss beneath rationality (that is, in Polanyi’s language, “the tacit dimension”), he clasps this identity to himself in his leap and so protects himself from full immersion in mystery and its creative emergence in our being and saying. See Stanley Romaine Hopper, “Walking Barefoot in the City of the Pied Cow” (245ff) and my “Introduction: The Artistry of Theopoiesis” (10-11) in Stanley Romaine Hopper, _The Way of Transfiguration: Religious Imagination as Theopoiesis_, eds. R. Melvin Keiser and Tony Stoneburner (Louisville: Westminster/John Knox Press, 1992).

2 At the end of his life, evident in unpublished fragments and lecture notes, Niebuhr explicitly embraced phenomenology, not as concept-clarification as in Tillich’s use of early Husserl, but as examination of phenomena, as in Merleau-Ponty’s use of later Husserl. See Chapter Three, “A Postcritical Ambience,” esp. 53-54, in my _Recovering the Personal: Religious Language and the Post-Critical Quest of H. Richard Niebuhr_ (Atlanta: Scholars Press, 1988).

3 I have written at greater length on Tillich’s systematic thought and use of phenomenology as “critical” in “Phenomenology and Spiritual Maturity in the Tillichian Magisterium,” delivered at the 1984 American Academy of Religion and published in _Religion and Intellectual Life_, v.III, No. 4, Summer 1986: 108-117.

Mel Keiser on Michael Polanyi and Paul Tillich

Durwood Foster

Mel Keiser’s proactive brooding re: Polanyi and Tillich will hopefully appetize an ongoing probe of their intriguing interface, which I deem far from having been adequately parsed.

1. Tillich never studied _Personal Knowledge_ and Polanyi never got to “Participation and Knowing,” the piece Tillich most wanted him to read. How about a joint session of the Tillich Society and the Polanyi Society sometime, with Tillichians trying to state Polanyi (maybe starting with _The Tacit Dimension_) and Polanyians expounding the unread essay, each side then critiquing the other?

2. Tillich would never have been comfortable with “Post Critical” posited as an historical period, especially ours! His encomium for Buber, one of his last utterances (1965), shows him especially aware of the upsurge of criticism and religion’s need to accept and exercise it resolutely. Since then, we have seen intensification of negative historiography, “the new scientific atheism,” religio-cultural terrorism, and burgeoning fundamentalism. Tillich, who died thinking we are in an uphill battle for religious relevance, always was especially bothered by the attempt to use faith to avoid or circumvent criticism.

3. Polanyi also, as I construe his writing and recall the several times I saw, heard or talked with him, was definitely NOT one to relax or dodge criticism. Ironically, his pointed challenge to Tillich, in the article published just before they met in 1963, was occasioned by the LATTER’s effort to make faith in Christ immune to his-
toriography. Is it possible that “post critical” is a somewhat unfortunate expression in the subtitle of Personal Knowledge? I have always felt Bill Poteat, for example, got too carried away with it. Tillich could have agreed with it as a phase—a terribly essential and climactic one—of humane knowledge. Compare his own “uniting knowledge” and the “mysticism” for which he feared epistemologists would damn him. This phase for Tillich did not dispense, but alternated coterminously, WITH rigorous criticism, putting him substantively, let me say again, in the same ball park with Polanyi. Ah, if we could have the two of them back and in the same room for just a few hours! Polanyi’s “greater intimacy” and “epistemology of embodiment”—these phrases are too vague for me at first blush—might well prove facilitative in clarifying Tillich. There is no doubt the “from-to” of tacit knowing offers help.

4. In my San Diego comments three years ago, I did, as Mel notes, bring out Tillich’s long standing deeply Lutheran bias against “faith as a human act.” I also adduced the remarkable turn at the end of the Systematic Theology, under the rubric of “essentialization,” to affirmation of free human input into the meaning of creation and history. This is still largely ignored by Tillichian scholarship, and I would rejoice at Polanyian help in saluting this aspect of Tillich’s final vision. Mel’s “divine and human act” begins well.

5. The “dichotomy of essence and existence,” however, is (pace Mel) anything but a “dualism” in Tillich. Existence is a universal condition of our human essence—its sinful distortion—which in every moment requires and presupposes the goodness and redeemability of essence. Creation’s essence is, though, distinct from God who always transcends even while bearing and consummating it. Tillich is an eschatological panentheist, not simply a pantheist, and individuation (of us from each other and from animals and things) is polar to and not essentially nefarious to participation. Polanyi broadly agrees, I like to believe, and in his late writing (for example, his nod to Whitehead) supplements helpfully the evolution always underway in Tillich. They were indeed a dynamic duo, and further coordination can only do us all good.

Towards A Post-Critical Christian Theology:  
A Response to Melvin Keiser  
Richard Gelwick

Melvin Keiser’s response to the papers on the Berkeley dialogue between Paul Tillich and Michael Polanyi in 1963 is very insightful, helpful, and procreative. Keiser is very appreciative of Tillich’s theological work, but he is also a radical Polanyian. Keiser clearly grasps the deep implications of Polanyi’s non-bifurcating, non-dichotomous, anti-Cartesian dualistic understanding of the relation of the knower and the known. Out of this Polanyian view accompanied with support from Merleau-Ponty’s phenomenology and likely his Professor William Poteat’s profound meditations on embodiment, Keiser sharpens the need for further exploration of the potential of a collaborative development among Tillichian, Polanyian, and emerging post-critical thought.¹ In his response, however, there is a neglected dominating issue for Tillich and Polanyi of communicating the Christian message in a world going deaf to hearing it. Tillich and Polanyi in their “mindbodyliness,” to use William Poteat’s term, dwell in the experiences of the most destructive war of modern history. Just four months earlier, they saw, with the disasters of World War I in their memories, the brink of nuclear war in the
Cuban Missile Crisis of 1962. Tillich and Polanyi share gravity about our beliefs and their consequences. This consideration of communicating the Christian faith affects my understanding of why Tillich and Polanyi meet. It is seen in two reasons: (1) It is why Polanyi says to Tillich that he is coming to him to explain why the theory of personal knowledge described in tacit knowing “may open up a cosmic vision which will harmonize with some basic teachings of Christianity.”2 (2) The occasion for Tillich and Polanyi meeting is Tillich’s series of lectures on “The Irrelevance and Relevance of the Christian Message” and Polanyi has just listened to the second of the series on “The Nature of Present Day Thought: Its Strangeness to Traditional Christianity.” Polanyi did not casually attend the lecture but made a special effort to come from Stanford to Berkeley to attend and to meet Tillich. Tillich’s and Polanyi’s concern for the Christian message being received in our time is why I called their meeting a Christian encounter. Their meeting is about overcoming the dominance of a flattening and destructive worldview of reality that discards the meaning of the Christian message. This worldview is a view of the reality of truth as being based on a scientific objectivism. This view is a major issue that both Tillich and Polanyi are addressing. Keiser, in his pressing for a more radical post-critical mode, points toward potential in Tillich’s theology, or as Durwood Foster so aptly described, Tillich and Polanyi as “an uncoordinated duo.” The promise of such a further discussion implied in Keiser’s discussion might pursue issues such as the following ones.

1. Comparing Tillich and Polanyi in the wider scope of their writings. Tillich and Polanyi are not on the same page in Polanyi’s criticism of Tillich about the relations of science and religion because Polanyi is addressing the statement on science and religion in *Dynamics of Faith* and not all of Tillich’s three volume *Systematic Theology*. Polanyi does acknowledge in a footnote that he is much closer to Tillich’s statement in *Volume I*: “The element of union and the element of detachment appear in different proportions in the different realms of knowledge. But there is no knowledge without the presence of both elements.”4 Don Musser suggested the need for wider comparison in his presentation.5

2. Comparing Tillich and Polanyi on the analysis of the obstacles to the reception and holding of Christian faith in the current age. In Keiser’s response, he is suggestive of the wide range of intimate and of expressive feeling with Polanyi’s theory of knowing. Tillich also saw the knowledge and insight of expression as major signs and pointers to understanding the human condition. Tillich also, compared to Polanyi, has an elaborate discussion of the history of culture leading to our present age while Polanyi, though briefly, traces the origins of the scientific model of objective truth back to Democritus and focuses mostly on the nihilism of the 20th century. Yet much of what Tillich sees in the calculating technical reason of our era brings to the fore what Polanyi is also trying to overcome. Further, Poteat’s development of post-critical being seems to press more deeply into how our bifurcated critical consciousness denies us the entrance into the omnipresent realities in which we live and breathe, hence his deciding to use “mindbody” in his reflections.

3. Comparing Tillich and Polanyi on the relations of science and religion. Robert Russell, eminent leader in the science and theology field, briefly began this discussion in the earlier presentation.6 Tillich’s statement in *Dynamics of Faith* does seem to be dichotomizing religion into separate compartments. This may be only a matter of distinctions such as one used by major theologians and scholars of science and religion such as John Haught and Ian Barbour who discern a spectrum of similar possibilities of relations of science and religion such as conflict, contrast, contact, and confirmation in Haught and conflict, independence, dialogue, and integration in Barbour.7 From Polanyi’s view and also Tillich’s, all of the views in science and religion necessarily involve indwelling and participatory knowing. The distinctions seem to lie in degrees of difference in where attention in the knowing process aims in the knower’s intentionality and how much the self goes
into this indwelling. Perhaps once we recover the unity of knowing and being, we could again allow with less
danger the kinds of distinctions between science and religion that are made without suggesting hegemony of
one over the other. In this regard, it may be helpful to consider Poteat’s more radical emphasis on indwelling
to see how the relations of science and religion would develop. Poteat was appreciative of Tillich and used
Tillichian expressions such as “being transparent to the ground of being.”

4. Comparing Tillich’s and Polanyi’s ontologies. This issue may be the most fundamental and promising.
Both Tillich and Polanyi are concerned about the ultimate reality in which we move and have our being. Til-
llich examines and builds an ontology that underlies his whole system. Polanyi talks mostly about reality and
how science exhibits the human capacity to acquire knowledge through discovery. He describes reality as
having “…the independence and power for manifesting itself in yet unthought of ways in the future. I shall
say, accordingly, that minds and problems possess a deeper reality than cobblestones, although cobblestones
are admittedly more real…”8 In Personal Knowledge in Part Four, Knowing and Being, Polanyi presents his
account of the rise of life leading from its origins to the Christian worshiping God.9 In “Science and Religion:
Separate Dimensions or Common Ground,” Polanyi refers to his ontology in his theory of knowledge when he
says that it opens the way to a stratified and unified view of the universe by applying his structure of knowing
to the biologic rise of human life and its capacity to know truths about reality.10 But one of the unpacked
issues in the Tillich and Polanyi discussions so far is Tillich’s meaning of “dimension.”11 When Polanyi sees
the term “dimension” in Dynamics of Faith, he does not have nor could he have had in mind Tillich’s special
discussion of dimensions in the unity of life in Systematic Theology III since it was published shortly after
their meeting in 1963.

What then is the challenge of the Tillich and Polanyi meeting? I think it is to bring together their
potential for mutually aiding a post-critical theology. Poteat’s challenge is for Tillich and Polanyi scholars to
carry on.

Endnotes

1 The pursuit of post-critical thought is well represented in William H. Poteat’s works published in his
later years after investigating “the mindbody” in the lived world. For a brief introduction to Poteat’s impact
and contribution, see Tradition and Discovery: The Polanyi Society Periodical 35:2 and 36:2 available in the
TAD digital archives on the Polanyi web site: http://www.polanyisociety.org. For in-depth reading, see
University Press, 1985), A Philosophical Daybook: Post-Critical Investigations (Columbia, MO: University
of MO Press, 1990), and Recovering the Ground: Critical Exercises in Anamnesis (Albany, NY: SUNY Press,
1994).

2 “Science and Religion: Separate Dimensions or Common Ground?”, Philosophy Today, VII, (Spring

3 For a complete text of this lecture and the other two lectures with insightful notes by Durwood Foster,
see Paul Tillich, The Irrelevance and Relevance of the Christian Message, ed. Durwood Foster (Cleveland,

4 “Science and Religion: Separate Dimensions or Common Ground?”, p. 4.


6 Ibid., pp. 40-47.
A Response to Keiser: Is Tillich A “Critical” Thinker?

Donald Musser

Since the 1970s, my theological thinking has been influenced decisively by Polanyi’s epistemology and Tillich’s theology. I wrote my Ph. D. dissertation on the value of Polanyi’s theory of knowing for a contemporary method of articulating the essential theological affirmations of the Christian tradition. Lately, I co-authored (with Joseph L. Price) a primer on Tillich.\(^1\) Previously in TAD, I compared sympathetically their views of historical processes.\(^2\) With Mel Keiser, I agree that the similarities between the two are beckoning. Unlike him, I see significant points of contact and intersections.

At the heart of theological affirmations are the knower and the known, the subject and object. Although Keiser believes that Tillich remains mired in the Cartesian distinction between the two, I believe that, with Polanyi, Tillich agrees that all knowledge has a personal element. His notion of a dialectic that arises between the experiential, participatory involvement of the knower with objective reality is a crucial similarity. The pole of objectivity is in dialectical tension with the personal pole of subjectivity. The subjective knower seeks for the underlying meaning of religious experience, elucidating sacred texts in a faith community.

Tillich opposed the naked objectivity of truth claims in both science and theology on this basis. Like Polanyi, he opposed any version of objectivism. He would agree that all claims of truth are provisional, rejecting both propositional objectivity because it rejects the personal, and affirming the quest for truth, while knowing that theological affirmations can only be claimed with mellow certainty. Thus, Keiser is correct in sensing “a family resemblance between Polanyi and Tillich.” But, I do not share his view that Tillich remained a “critical” thinker as opposed to Polanyi’s “post-critical” position. Rather, Tillich’s view of participative knowing and Polanyi’s view of personal knowledge are more congenial than Keiser claims. Tillich affirms an “indwelling one reality common to all,” as Keiser affirms that Polanyi does.

The tacit dimension of Polanyi reverberates commensurately with Tillich’s notion of participative knowing. For Tillich, the indwelt, existential experience of the knower is in polar relationship with all knowledge claims. Subjectivity and objectivity are likewise both present in knowing. Keiser’s assertion that
“western dualism is the underpinning of Tillich’s whole enterprise” is therefore an overstatement at best, and false at worst.

In an earlier essay on Tillich’s view of theological reasoning, I put it this way: “The process of knowing . . . contains two fundamental elements, those of union and detachment. All cognitive reason contains both elements in different proportions. In . . . science, the knower remains primarily detached.” In the humanities, on the other hand, the object is indwelt in the self.3

In Tillich, both faith and knowing are immersed in the dialectic of being in and with Being. One of the reasons that Tillich was viewed with suspicion by many Neo-orthodox thinkers is because he did not see “the self [as] entirely passive to, rather than interacting with, God’s involvement in our lives” (so Keiser). It was precisely because he held that faith had a polar structure—we tacitly sense the ground of our reality and we respond in faith to that reality in commitment and affirmation. Thus, I am baffled with Keiser’s claim that “there is no intermingling of the divine and human in faith.” In one of Tillich’s most famous sermons, “You Are Accepted,” the mutuality of divinity and humanity is manifest in the sense that one must accept God’s acceptance by an act of the mind and will. Further, in Tillich’s view of faith as ultimate concern, the self actively seeks, finds, and embraces one’s object of concern. Also, the entirety of Tillich’s The Courage to Be depicts the person as embodying a position of active intent; namely, the courage to be.

In my response to Mel Keiser’s paper, “Beginning Where We Are: The Post-Critical Starting-Point of Systematic Theology,” presented at the annual meeting of the Polanyi Society in 1986, I said, “I join Keiser in seeking an adequate post-critical launching pad for an articulate theology.” As then, I continue to find beckoning conjunctures between Polanyi and Tillich.

Endnotes