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Yuji Ijiri: On Accountability

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Abstract:

This paper discusses Yuji Ijiri's notion of accountability, the central role it played in his research, and its importance to conceptual frameworks of accounting.

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In his accomplishments, our gentle inductee, Yuji Ijiri, represents the best traditions of the past while opening new prospects for the future in both accounting research and practice. William W. Cooper (1989)

1 What's new?

Yuji Ijiri made many seminal contributions to accounting and auditing (e. g., the axioms of control, quantities, and exchanges that explain historical cost accounting,¹ a spreadsheet (matrix algebra) formulation of causal double-entry bookkeeping,² a formalization of the accountant's notion reliability,³ triple-entry bookkeeping,⁴ and a model that integrates audit sampling objectives⁵), other business disciplines (e. g., goal programming in operations⁶ and measuring brand assets in marketing⁷), and foundational disciplines (e. g., aggregation theory⁸ and the theory of firm size distributions in economics⁹). His love of accounting (from boyhood) and desire to understand the accountability relationship at its core seems to have been the common foundation for many of these advances.

The related concept of stewardship (and accounting for stewardship) is biblical (Luke 16:2) and a canon of the accounting bible (Paton & Littleton, 1940).^{10,11} So, what's new? What did Yuji Ijiri add? The answer lies, at least in part, in the opening quote from William Wager Cooper, Yuji's dissertation advisor at the Graduate

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School of Industrial Administration (GSIA) at Carnegie Mellon University (CMU) and Yuji's third father figure. Yuji and his research embodied both the classical and the modern and both the theoretical and the practical. He had a deep appreciation for the history of thought on accounting, combined with the best training in mathematics, statistics, economics, and organization theory that emerged at GSIA and a handful of other pioneering "modern" business schools in the 1950s and 1960s. He explored the abstract mathematical foundations of accounting and was sought out for advice by corporations, auditors, standard setters, regulators, Congress, and other policymakers.¹² He was also one of the most creative thinkers in the celebrated history of GSIA (later Tepper School of Business).

Accounting designed for an owner-manager is relatively straightforward. However, once a manager uses another person's money to make investments in a business, he "has contractual (or at a minimum moral) obligations to *account for* how the money was spent and how it was earned ... accountability is what distinguishes accounting from other information systems in an organization or in a society (Ijiri, 1975, p. 32)." Yuji emphasized the tri-party accountant-accountee-accountant relationship and the central role of accountability in driving many of the features of accounting that would otherwise be difficult to explain (Ijiri, 1975, p. 34).¹³

Principal-agent theory can be seen as building on Ijiri's accountability relationship, but there is a deep appreciation for accounting's role captured in Yuji's writings, which is absent from principal-agent models. He stressed both the "right to know" and the "right to privacy" and wrote that it is accountability we should look to in order to decide whether or not information should be disclosed (Ijiri, 1975, p. 33). Yuji developed the notion of hard (difficult to manipulate) measures that limit attention to verifiable facts, use a well-specified measurement process, and restrict the number of acceptable measurement rules. In principal-agent models, there is typically little (if any) distinction between facts and performance measures, and the accounting measurement process is typically not modeled. Yuji developed a deep appreciation of double-entry bookkeeping's beauty, special properties as a causal language, mathematical foundations, history, and its importance to economic development, while double-entry is rarely incorporated in principal-agent models. Yuji wrote about the importance of trust in going concerns characterized by a separation of ownership and management and the role of accountability in facilitating that trust, while principal-agent models are typically of one-shot interactions.¹⁴

2 So what?

This type of inductive reasoning to derive goals implicit in the behavior of an existing system is not intended to be pro-establishment or to promote the maintenance of the status quo. The purpose of such an exercise is to highlight where changes are most needed and where they are feasible ... Goal assumptions in normative models or goals advocated in policy discussions are often stated purely on the basis of one's conviction and preference. This may be the most crucial reason why so many normative models or policy proposals are not implemented in the real world. Ijiri (1975, p. 28)

Yuji's research is difficult to classify as normative or positive. He sought both to explain what we observe and to create new, better accounting for society. He typically started by exploring the foundations underlying *what is* before imagining *what could be*. His triple-entry bookkeeping was not the first to extend double-entry, but he was the first to use the role of double-entry relative to single-entry as the foundation for the extension.

In contrast, the financial accounting standard setters appear to take a normative approach in developing their conceptual frameworks without using existing, well-functioning practices as their starting point.¹⁵ A single-person (the financial statement user) decision-usefulness perspective is typically taken (or at least elevated over other approaches), perhaps because it is easier than focusing on the tri-party accountability relationship. The decision-usefulness perspective is difficult to reconcile with what we observe in practice, including the standard setters' own standards. Most instructors of accounting and textbooks seem to follow the standard setters and teach their students those goal-oriented, user-focused conceptual frameworks.¹⁶ As Ijiri (1983) wrote, "it is the world of I and You, not the world of I and It with which the accountant must deal. Accounting should be defined, explained, and taught as such. To do otherwise is not only misleading to the public but also dangerous to the accounting profession because it widens the gap between what accounting really is and what the public thinks accounting is."

3 Personal remarks

I first met Yuji in the 1980s when he visited The Ohio State University (OSU) while I was studying in Tom Burns' undergraduate accounting program. Yuji treated me and the other students as his equals—with kindness and

as individuals he could learn from. When I joined the PhD Program at OSU, I wrote Maurice Moonitz, a family friend, for advice. He wrote that there was no better example of a great accounting academic than Yuji Ijiri. Yuji returned to OSU while I was a PhD student to present his innovative research on triple-entry bookkeeping and momentum accounting. I was in awe.

When I was lucky enough to join CMU as a faculty member, Yuji and I talked about a game called Mastermind that I had been playing with my son. Yuji loved all sorts of games and mentioned an algorithm he had written for Mastermind, but he could not find a copy of his paper in his office. The next day, he delivered a copy to me. He had walked to the University of Pittsburgh Library and made a copy from their archives for me. This was a pattern that repeated itself frequently over nearly 20 years. Even when Yuji was having his own health problems later in life, he showed great kindness and compassion when any difficulty came my way, including when my father, Henry Hatfield Glover, passed away around the time Yuji retired and moved to Oberlin, Ohio. Yuji was the most creative accounting academic I have known, but somehow his kindness and gentle nature stand out as even more exemplary.

Earlier, I described Bill Cooper as Yuji's third father figure. His father, Takejiro Ijiri, introduced him to business at the family's bakery, putting Yuji in charge of its books. He met his second father figure, Professor Taminosuke Nishimura, while attending Doshisha Junior College. Professor Nishimura, who would also become Yuji's father-in-law, asked his students to read *Sartor Resartus* (*Tailor Retailored*) by Thomas Carlyle and draw analogies to accounting. Developing captivating connections between seemingly disparate ideas became Yuji's life-long approach to research. I close with a related quote from Goethe's *Faust*, which Yuji was fond of.

GEIST:	SPIRIT:
In Lebensfluten, im Tatensturm Wall ich auf und ab, Wehe hin und her! Geburt und Grab, Ein ewiges Meer, Ein wechselndes Wehen, Ein glühend Leben, So schaff ich am laufenden Webstuhl der Zeit Und wirke der Gottheit lebendiges Kleid.	In the floods of life and creative storm To and fro I wave. Weave eternally. And birth and grave, An eternal sea, A changeful strife, A glowing life: At the roaring loom of the ages I plod And fashion the life-giving garment of God.

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Notes

- 1 See Ijiri (1965a).
- 2 See Ijiri (1965b).
- 3 See Ijiri and Jaedicke (1966) and Ijiri (1967).
- 4 See Ijiri (1982, 1989).
- 5 See Ijiri and Kaplan (1971).
- 6 See Charnes, Cooper, and Ijiri (1963).
- 7 See Farquhar, Han, and Ijiri (1991).
- 8 See Ijiri (1971).
- 9 See Ijiri and Simon (1977).
- 10 There is correspondence between Paton and Ijiri in the CMU archives. Yuji sent Paton his 1975 monograph. Paton wrote back, saying he wished Yuji had cited something else he had written instead of Paton and Littleton (1940), since he (Paton) was fundamentally a believer in value rather than historical cost as the appropriate measurement basis. See also Ijiri (1980) for the first book review of Paton and Littleton (1940) published in *The Accounting Review* and Paton's response.
- 11 The Trueblood Study Group Report on the objectives of financial statements (AICPA), which Yuji contributed to, favors accountability over stewardship (but emphasizes decision usefulness over both), with stewardship described as having a narrower focus than accountability, for example, by limiting attention to past activities.
- 12 Yuji was also a key figure in the *Journal of Accounting and Public Policy*.
- 13 The referee pointed out one of Yuji's favorite play on words: from "count" to "account" to "accountor" to "accountee" to "accountant" and, finally, to "accountability" which encompasses all previous words.
- 14 The recent literature on relational/self-enforcing contracts in economics seems a promising framework for accounting theorists to use to build on some of the lessons Yuji taught us.
- 15 One critique of an accountability-based conceptual framework is that accountability boils down the design of executive compensation contracts and the performance measures upon which they depend, which is best left to executive compensation committees. This critique

seems to make an implicit unrealistic assumption—that it is possible for shareholders and their proxies to commit to ignore publicly reported financial accounting numbers in assessing accountability, whether or not to continue the relationship, and in dividing the measured surplus. See also Glover (2014).

16 See Cyert and Ijiri (1974) on the difficulties of implementing the decision-usefulness approach without taking the competing preferences of management and the accounting profession into consideration.

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