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*Meaning-Making, Negotiation, and Change in School Accountability, Or What Sociology Can Offer Policy Studies**

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In school systems around the world, countless reform strategies have focused on school and teacher accountability—the process of evaluating schools’ performance on the basis of student measures. Policy and education research has been dominated by debates on its effectiveness, where advocates highlight the positive effects on achievement while critics emphasize the negative consequences on pressure, morale, and autonomy. Yet the question is not so much whether to have accountability, but what form it should take. To answer this, sociologists contribute through their study of accountability’s organizational and ecological dynamics—key facets that are sidelined when researchers only focus on quantitative program evaluation. An organizational perspective highlights the *meaning-making* school actors and the general public have of the policy, viewing it through technical-rationalist and institutional-performative lenses. An ecological perspective highlights how the form of accountability is a *negotiated outcome* of larger macrosocial forces, and how accountability is itself contributive to larger social changes. This review suggests a broader conceptualization of accountability regimes, and the unique contribution of critical, organizational, and sociological perspectives to the study of public policies.

Accountability has become a key concept for modern public governance and a common strategy for ensuring efficiency and instituting improvements in public agencies (Bovens, Goodin, and Schillemans 2014). In education, accountability often happens in the form of evaluating school and teacher performance through measures of student performance, with associated incentives, sanctions, and supports for meeting or failing to meet certain standards (Figlio and Loeb 2011; Ingersoll and Collins 2017). In the United States, federal accountability policies have shifted from punitive practices penalizing schools for not showing improvement to ones with less emphasis on test results and more supports for teachers (Dennis 2017). Some countries such as the United Kingdom and Chile have similar performance-based accountability systems

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with material consequences (Munoz-Chereau, González, and Meyers 2020), while other countries such as Colombia, Norway, and Denmark have soft accountability regimes that publicly post school results but do not tie direct incentives or sanctions (Diaz Rios 2020; Verger, Fontdevila, and Parcerisa 2019). While the practice of school accountability has been scaled up and down across the years and has taken different forms across contexts, these only emphasize its being a persistent, consequential, and dynamic transnational agenda (Holloway, Sørensen, and Verger 2017; Kim and Yun 2019). In this essay, “school accountability” is focused on both school and teacher accountability systems in basic education (i.e., kindergarten to 12th grade).

Studies and reviews on school accountability have been dominated by economists, policy analysts, education scholars, and critical theorists investigating how accountability practices impact students, teachers, and school processes (Carnoy and Loeb 2002; Figlio and Loeb 2011; Hamilton, Stecher, and Yuan 2012; Hoffer 2000; Jacob 2005; Lee 2008; Neal 2018; Neal and Schanzenbach 2010). On the one hand, some studies highlight the positive impact on student achievement based on standardized test scores, given the presence of test-based accountability systems (Carnoy and Loeb 2002; Dee and Jacob 2011; Figlio and Loeb 2011). On the other hand, studies also point to the unintended negative effects on teachers cheating (Hibel and Penn 2020; Jacob and Levitt 2003), focusing instruction on those who are near the proficiency standard (Neal and Schanzenbach 2010), and leaving the profession altogether (Ryan et al. 2017). But the question is not so much whether to institute accountability practices, but what form is best suited for what particular context. Here, organizational and educational sociologists can intervene by studying the grounded and macrosocial dynamics of school accountability—enlarging our view to more than just studying program effects. This review attempts to integrate studies of school accountability, not from the perspective of what its effects are, but from the perspective of what organizational and ecological drivers are at play.

This sociological account of school accountability has important implications for education researchers studying meaning-making and policy change in schools, for organizational researchers investigating the interaction of forces within and beyond the organization, and for policy makers needing clarity with the objectives and broader consequences of practices instituted. The review challenges and furthers three assumptions: Although policies are often viewed through their technical efficacy (Ingersoll and Collins 2017; Lam 2001), this essay highlights that accountability is understood as having both technical and performative *meanings*. Whereas accountability is often understood as a practice mainly affected by decisions within the educational organization (Figlio and Loeb 2011), this essay highlights that the policy’s form is *negotiated* and affected by larger political, economic, technological, and macrosocial dynamics

beyond the organization. Finally, although stakeholders assume that the institution changes accountability practices (Hopmann 2008; Verger and Fontdevila 2019), such practices also critically influence larger social changes.

Summarizing studies on school accountability, I explore how organizational and ecological frameworks can provide novel ways of seeing accountability's changes and influence within, over, and beyond the school organization. First, the essay explains the common view of accountability as a technical strategy that is global in scope, rational in logic, and reactive to measurement and incentive. Second, I complement the discussion of this technical function with accountability's sometimes neglected performative function of addressing institutional pressures. The third section presents how the practice of school accountability is affected by larger social transformations—inclusive of political changes, economic structures, technological affordances, social resistances, and even global pandemics. Finally, the fourth section highlights how accountability affects not only student performance and organizational processes but also broader issues of social stratification and societal discourses on education, work, and the state.

This essay suggests the key role sociologists play in studying policies: how people make meaning of them, how these policies are transacted and negotiated products of macrosocial trends, and how policies affect social changes beyond those of its intended beneficiaries. It is a call to action for sociologists to more actively assert the discipline's contribution to policy—extending the program-evaluative and experimental perspectives that have widely dominated the field. More generally, it aims to provoke discussions on how school and public policies must be understood as having *multiple functions*, operating over *multiple scales*, *dynamically changing* with resistances and negotiations, and metabolically relating to a *wider ecology*.

Accountability as Global, Rational, and Reactive

School accountability is just one part of a larger movement of using data for organizational and instructional improvement—emerging as a key strategy to better education systems, in both basic and higher education, public and private institutions (Coburn and Turner 2012). Such practices assume that the inclusion of data into instructional and organizational decisions will necessarily lead to improvements, in part through the infusion of more information (Goren 2012). In schools, these data practices span different *forms* of collected data—standardized, formative, summative assessments; demographic and survey data; school analytics; student profiles—and also different *uses* for such data—admission decisions; ability grouping; targeted intervention; progress tracking; dropout prediction; program evaluation; teacher accountability; school accreditation/competition; organizational decision-making or justification (Coburn and

Turner 2011; Penuel and Shepard 2016; Williamson 2017). While data uses and practices vary among schools and education systems, one cannot deny their dominance across international and intercultural contexts (Hopmann 2008; Kim and Yun 2019; Meyer and Baker 1996).

Accountability as a Global Phenomenon

The practice of accountability, however, is not new in education. In different countries, data have often been collected on student performance and tied to assuring quality in educational practice. Wiliam (2010) traces the history of using data for accountability in England to 1858 and in the United States to 1886, and that these continue in their present form with international comparisons, value-added measures of school and teacher effectiveness, and public posting of school test results. Haertel and Herman (2005) document different transformations of evaluations in the United States: from the school test programs of the early 1900s and the Head Start program evaluation in the 1960s through to the testing requirements of the Elementary and Secondary Education Act and the culmination in the No Child Left Behind Act of 2001. While the US federal policy on No Child Left Behind (NCLB) has mandated annual testing, reports of schools' adequate yearly progress, and associated penalties and incentives (Dee and Jacob 2011), this centralized system has since been scaled back by providing greater flexibility to states and more emphasis on supports for pedagogy rather than mere test results (Dennis 2017).

The use of data and the practice of accountability have also been documented in continental Europe and the United Kingdom (Grek, Lawn and Ozga 2013; Munoz-Chereau and González 2020; Verger and Curran 2014), Nordic countries (Møller and Skedsmo 2013; Wallenius, Juvonen and Hansen 2018), Latin America (Diaz Rios 2020; Parcerisa and Falabella 2017), Asia (Ng 2010; Rasmussen and Zou 2014), and Africa (Taylor 2009). Although a global phenomenon, school accountability is not singular or static. For example, countries such as Spain, China, and Chile use test data to evaluate teachers' performance or to determine school incentives while other countries such as Colombia and Denmark use them only for public reporting (Diaz Rios 2020; Rasmussen and Zou 2014; Verger and Curran 2014; Verger et al. 2019). Countries such as Japan and Singapore also show that accountability is never fixed, given their transition from high-stakes standardized forms of accountability to ones emphasizing greater local autonomy (Bjork 2016; Ng 2010).

Accountability and Rationality: A Focus on its Intended Consequences and Pathways

Often, school accountability is viewed as obvious, rational, and inherent in the work of education—especially with the need to technically monitor

progress of students and schools. The theory of action behind this policy is that (a) standards should be externally set, (b) assessments are given to gauge performance on those standards, and (c) incentives and sanctions are used to induce or motivate improvement (Haertel and Herman 2005; Ingersoll and Collins 2017). In a way, test score data measure the productive capacities of the school enterprise and show how different actors and processes contribute to the maximization of the “product” of student learning. Although crude, these have parallels with scientific management—emphasizing specialization of tasks, measurement of production, and incentives for performance (Waring 2016).

Often, policy studies assume this theory of action when evaluating accountability practices’ effects, comparing schools that practiced test-based accountability to those that did not. In their review of school accountability, economists Figlio and Loeb (2011) show how quasi-experimental evidence suggest robust improvements in elementary grade math performance but not necessarily in reading, based on the standardized test scores. Medium-run positive effects of this policy are also documented for math achievement, with students of accountability-induced primary schools obtaining increased average test scores even in middle school (Chiang 2009). More importantly, recent studies suggest long-term impacts of performance-based accountability on students’ attending college, completing a 4-year degree, and having higher earnings (Deming, Cohodes and Jennings 2016; Lavy 2020). While my purpose is not to review these effects (see Figlio and Loeb 2011, Lee 2008, and Wiliam 2010 for a more extensive discussion), these different studies suggest the effectiveness of accountability as a rational inducement to impact students’ performance.

Explanations regarding accountability’s improvements and effects on student achievement are not singular, and can operate through many potential mechanisms. One pathway is through schools raising their spending on instructional technology, curricular development, and teacher training (Chiang 2009; Rouse, Hannaway and Goldhaber 2013), an important aspect of “recoupling” that happens when schools practice rationalized ideals (Diamond 2012; Hallett 2010). Another pathway for the positive effect is in terms of how information regarding schools’ performance is key to improving them (O’Day 2002). A third one highlights how centralized accountability systems can open avenues for multiple stakeholders to augment and support school improvement efforts (Hooe 2016). A fourth one focuses on its capacity to pressure schools to perform, given potential school closure (Bifulco and Schwegman 2020). Other pathways, however, suggest that accountability does not simply operate through rational and technical improvements (Kane and Staiger 2002; Neal 2018; Neal and Schanzenbach 2010).

Accountability and Reactivity: A Focus on its Unintended Consequences

While accountability can work according to the theory of action that information and incentives induce instructional improvements, other scholars suggest the “reactivity” of organizations and organizational actors. In a way, the quantification of performance can influence organizations to react through the “redistribution of resources, redefinition of work, and proliferation of gaming strategies” (Espeland and Sauder 2007:3). In terms of accountability, schools may—in addition to, or as alternative for, improvements—opt to use strategies that artificially enhance performance, suggesting that certain accountability practices can be counter-productive (Figlio and Getzler 2006; Hibel and Penn 2020; Jacob and Levitt 2003). Such strategies include reclassifying low-income and low-performing students as disabled to make them ineligible to take standardized tests (Figlio and Getzler 2006); focusing attention on students who are near the proficiency cut-off and not necessarily those at the lowest and highest achievement extremes (Neal and Schanzenbach 2010); and in some cases, schools and teachers cheating to improve the school’s average test performance (Hibel and Penn 2020; Jacob and Levitt 2003).

Sociological studies have long documented how purposive goal-oriented policies and actions may have unanticipated and unintended consequences (Merton 1936; de Zwart 2015). However, given the rich literature as well on how people change their behavior based on being evaluated and incentivized (Espeland and Sauder 2007; Espeland and Stevens 1998; Lamont 2012), such organizational adaptations should not come as surprise. In a way, the importance ascribed to a quantitative indicator may lead to distortions and perversions of the social process initially intended to be monitored (Amrein and Berliner 2002; Campbell 1979). Thus, the measure becomes problematic, given how school staff focus on the quantification rather than the process or product it measures. Moreover, the measure does not necessarily identify how instruction needs to change or improve, and thus, provides little help in determining how to optimize learning.

More critically, this organizational reactivity to information and incentives can permeate organizational processes and interactions. Aside from influencing achievement and organizational behavior, accountability has been documented to negatively influence teacher morale coming from workplace pressures and constrained professionalism (Erichsen and Reynolds 2020), and also affect overall school climate (von der Embse et al. 2016). Educational psychological literature has also suggested how an orientation highlighting performance rather than mastery can be detrimental to academic motivation and achievement, thereby eliminating potential gains from accountability practices (Meece, Anderman, and Anderman 2005; Smeding et al. 2013). The studies suggest that

the rational logic of this practice may be thwarted by reactivity to incentives, which is not to say that the principles behind accountability are problematic, but that implementation is the linchpin.

Accountability, Pressure, and Performativity

Awash in numbers and measurements, individuals may take data for granted and see practices like school accountability as a natural extension and routine *modus operandi* to contemporary life. With the rational assumption that school organizations have to use data for accountability, improvement and efficiency, it is difficult to imagine schools and districts forgoing such data collection. But as in many other organizations, the use of data in education came about not simply as a function of technical-rational competence but also as a response to calls for school efficiency and legitimacy (Spillane, Parise, and Sherer 2011). Accountability's prominence results not only from the internal logical purposes it fulfills but also from the external veneer of objectivity attached to its use (Wilson 2011). Thus, schools use accountability for *both* intra-organizational efficiency and extra-organizational legitimacy—suggesting that its “meaning” is multiple and its justification varied for different people.

While economists, public policy scholars, and education researchers attempt to explain the rational outcomes and consequences of practices involving data and accountability, most sociologists and critical scholars investigate the deeper roots and rationales of such practices (Espeland and Sauder 2016). The institutional perspective suggests that formal structures of organizations (e.g., accountability) “reflect the myths of their institutional environments instead of the demands of their work activities.” (Meyer and Rowan 1977:341) It suggests that schools and school systems use accountability not so much to ensure quality as to provide legitimacy and a level of confidence on the organization. Such a perspective, however, can be outdated as data have been instrumental to educational changes while *at the same time* offering legitimacy for the organization (Hallett 2010; Penuel et al. 2017; Raudenbush 2008). Echoing Colyvas' (2012) argument, such quantification has both *technical* and *performative* meanings that contribute to altering organizational processes and providing symbols of rationality.

To further advance this perspective, I suggest the dynamics of pressure and performativity in furthering the agenda of accountability. First, different levels of the school organization respond to multiple *institutional pressures*—national and international, internal and external, real and imagined. Second, because of these multiscalar pressures, accountability is *performed* to legitimize the organizational enterprise at the same time that it provides meaningful rational changes. Using examples from school accountability practices in the United States, I concretize what institutional pressures and performativity mean.

Institutional Pressures

While the common rationale for school accountability is to address intra-organizational processes, it is also leveraged to address extra-organizational pressures. In education, the interaction between schools and the school “community” has expanded to involve organizational communities beyond the school’s local district: state regulating agencies, teachers unions, professional schools, and the wider public (Arum 2000). These forces and institutions outside the school organization may challenge the current form and delivery of education, with schools needing to hold account to these agencies they interact with or are governed by (Ng 2010; Rowan 2006). School practices may then be affected by these coercive, mimetic, and normative pressures, particularly from state regulation and modeling practices of other organizations (DiMaggio and Powell 1983). Thus, the use of data and the practice of accountability are not only means for organizational efficiency but also ways of attending to these pressures.

Institutions across different levels and organizational fields exert pressure, either directly or indirectly, on schools. Inasmuch as local community leaders exert pressure to know how schools are performing or succeeding in their goal of educating students (Arum 2000), national and international education institutions also add to these pressures (Lingard, Martino, and Rezai-Rashti 2013). Federal policies such as No Child Left Behind (NCLB) and Every Student Succeeds Act (ESSA) highlight the national concern for improving student outcomes and including data to track and present school progress (Black 2017; Schanzenbach, Bauer, and Mumford 2016; Schoen and Fusarelli 2008). International tests such as PISA, or Programme for International Student Assessment, also invoke a sense of crisis and urgency coming from country rankings and a country’s below average rank (Martens and Niemann 2013). This sense of crisis is not new, however, as different federal reports have long focused on this sense of crisis in education, with reports such as the *Equality of Educational Opportunity* (Coleman 1966) and *A Nation At Risk* (United States National Commission on Excellence in Education 1983). It thus seems that education is perennially lacking and in crisis, which motivates the use of various measures to account for and improve the school system, particularly public schools. Hinting at the performative aspect of education policy, Mehta (2013:286) argues that this paradigm that emphasized educational crisis in the United States has “directed the school reform movement over the last 25 years.”

More than these local, national, and international “publics” that can influence education, the pressure to perform and use data may also come from other organizations such as accrediting agencies, business employers, school ranking institutions, mass media, and policy organizations (Ewell 2011). More

importantly, practices of other schools and country education systems increase the pressure for the adoption of testing practices and the use of data for coaching teachers, making decisions, and improving instruction (Berends 2015; Camphuijsen, Møller, and Skedsmo 2020). In this way, even private schools not required to institute test-based accountability are pressured to participate (Nunes, Reis, and Seabra 2015). While these pressures can be forcefully exerted by these extra-organizational factors (e.g., district regulation and country ranking), internal school actors can also imagine this being exerted on them by a more abstract “public” pressure.

Thus, different institutional pressures may contribute to variations in the pervasiveness of accountability in schools, such that it becomes more critical in schools that experience greater pressures—whether those on top that are pressured to remain on top or those at bottom that need to improve and show legitimacy. In this way too, accountability is seen as an essential, familiar, and seemingly indispensable part of education.

Performativity

As accountability is framed as a natural part and extension of the educational project, the general public subscribes to the belief in its rational use and legitimizing function, with around three quarters of the American public in 2019 supporting standardized testing for third to eighth graders (Education Next 2019). On the one hand, the ability to have this “objective” measure of organizational performance is understood as promising scientifically informed policies and governance structures, that are argued to inevitably lead to progress (Williamson and Piattoeva 2019). On the other hand, even unfavorable data and information hold the potential of influencing schools to take action, allocating resources to where they are needed, and altering discourses on school improvement (Neal 2018). Whether to legitimize the current practices or to improve suboptimal processes, school accountability is seen as effecting change in some way. Of course, as I will show later, this public perception is contested, negotiated, and at times, changed.

This suggests that school accountability has a performative dimension as it signals that some institutional controls are set in place to ensure quality in schools. Such public performing aspect of school accountability can be seen in media headlines of state proficiency or achievement scores (Baroutsis 2016), school report cards that detail aggregate student achievement records (Jacobsen, Snyder, and Saultz 2014), school closures and threats of school closure that highlight the state’s education oversight (Bifulco and Schwegman 2020), and teacher evaluations and the threat of dismissal that provide a rhetoric of instructional quality (Erichsen and Reynolds 2020; Ingersoll and Collins 2017). These

varying ways of using data works not only to improve intra-organizational processes but also to perform for extra-organizational agents.

In this regard, the performative dimension can be recognized as having a rhetorical function of convincing audiences—both within and outside the organization—of the legitimacy of the institution, its enterprise, and its decisions (Carruthers and Espeland 1991; Wilson 2011). Such performance of school accountability shows the organization's effort toward increased efficiency, effectiveness, equity, and transparency (Verger and Parcerisa 2018). Its public-facing character is a face-saving character. But such performativity may also backfire if the poor performance of schools lead external actors to withdraw support of the institution (Jacobsen and Snyder 2014).

To be fair and in many cases, accountability is not wholly, solely, and primarily used for its performativity—particularly as educational organizations use their data to increase focus on the core technical work of teaching (Means, Padilla, and Gallagher 2010; Rowan 2006; Spillane and Parise 2011). Notwithstanding this, however, to deny or ignore the performative value of accountability practices will lead to having only a partial picture. In sum, this discussion highlights how people make meaning of a policy like school accountability, seeing it as rational on the one hand yet also performative on the other. A sociological contribution to policymaking is to clarify what these latent meanings are and what values they espouse, to create nuanced policies.

Social Ecological Conditions for Accountability

While the previous sections highlight organizational and institutional perspectives that look into school accountability as a response to both *technical* work within the organization and *institutional* forces from agencies that interact and govern the organization, this section takes an even broader perspective by presenting how distal macrosocial factors contribute to such practice. This section summarizes political, economic, technological, and social dimensions that impact the transnational practice of school accountability. In the same vein as Rowan (2006) who extended institutional theory on education to include big politics and big business, this section furthers the project by including technology, social justice, and public health as ecological conditions with potentials for dynamically resisting and negotiating accountability. In this way, these practices are “metabolized” in the macrosocial environment, that is, they are changed by actions outside the organization.

New Public Management, Politics, and Resistance

As a strategy, school accountability must be seen not as an isolated reform in education but as part of a larger movement towards new public management (NPM) or neoliberalism, which placed greater emphasis on public services

being managed like the private sector with its focus on smaller management units, measurable outcomes, and “customer”-orientation (Ambrosio 2013; Gunter, Grimaldi and Hall 2016; Hopmann 2008). While originally proposed by conservative and right-wing sectors to make public services more efficient, it has since been accepted as a valid reform approach by a broader range of political ideologies (Verger and Parcerisa 2018). In the United States, for example, the 2001 NCLB was supported by both Republicans and Democrats, who set aside differing beliefs on state and local controls to endorse a stronger federal oversight in education (Wong 2013). In Norway, widely supported neoliberal reforms came through school decentralization, performance measurement, and stronger state supervision—all accelerated by the country’s dismal performance in PISA (Møller and Skedsmo 2013). Even in developing countries, NPM through accountability measures and market-driven reforms is touted as a helpful salve to address educational problems (Mbiti 2016). While political opinions diverge on how to best practice accountability, few political actors have provided strong opposition to *some* form of it (Lewis and Young 2013).

Thus, the battleground is not so much whether to have accountability but in what form this takes. Far from the neatness assumed with the technical-rationality of measuring performance in NPM, the arena of school accountability is a contested space with various levels of government regulation and control interacting with local agencies, professional associations, and public advocacies (Cochran-Smith, Piazza, and Power 2013). It involves tensions not only in the macro-politics of creating a state policy on test-based accountability but also in the micro-politics at the school and district levels that have to implement this and meet resistance from teachers and teacher organizations (Pinto 2016; Terhart 2013). Such resistance and negotiation also present the dynamic aspect of school accountability where public feedback can influence change and adjustments in this almost well-entrenched practice in schools (McDonnell 2013).

While school accountability is highly political, such dimension is often invisible and concealed through its technical-rational focus, which on the surface has important advantages in terms of promoting networked governance, freedom from bureaucracy, and a focus on results (Ozga 2020). Nonetheless, such naturalization of the practice and seeming objectivity in the measure mask the power relations between state and local control, and between institutional force and instructional autonomy. Such concealment of the political also happens when discourses focus on the seeming lack of credible and realistic alternatives to hold schools accountable, such that the current practice remains with only minor adjustments (Mintrop and Sunderman 2009). Taken together, these suggest how larger policy movements, political consensus and dissensus, and their consequent invisibility all contribute to how school accountability is practiced in context.

Economic Discourses, Pressures, and Interests

Underlying the sense of urgency and importance in holding schools accountable are a set of discourses about education's function in society. In a global "schooling society," education has become a primary institution with crucial consequences for individual development and social progress (Baker 2014). Economists have long emphasized how individual growth in earnings and national growth rates in GDP are significantly predicted by the population's human capital, which depend on cognitive skills and are proxied by years of schooling and achievement scores (Becker 1964; Hanushek 2019; Lucas 2015). Much of the discourse too revolves around issues of global economic competitiveness, and the growing inequalities between rich and poor nations, and rich and poor individuals (Lauder, Brown and Dillabough 2006). Given these discourses about the need to address issues of competitiveness and inequalities, greater weight is placed on schools and the improvement that reforms can do to advance cognitive skills and human capital.

While there exists an economic motivation to improve schools, an economic "solution" is also devised with the promotion of high-stakes testing, school accountability, and competitive markets like that of charter schools and voucher programs. Situated within neoliberal logics, these reforms are understood as necessary in a globalized economy, holding the promise of increasing academic achievement and closing achievement gaps (Hursh 2007). It assumes, similar to the first section of this essay, the advantages of rational-technical reforms that emphasize evidence-based decision-making, high-stakes testing, teacher evaluation, and sanctions/incentives (Cochran-Smith and Piazza 2013; Hanushek 2019). More importantly, these practices that try to ensure effectiveness are also aimed at increasing equity through quality instruction (Harris 2012). What is highlighted then is that the intra-organizational practice of accountability cannot be divorced from wider societal discourses on economic competitiveness, efficiency, and equity.

Inasmuch as the economic motivations and technical-rational solutions offer an important backdrop and driver for such accountability practices, it is not without opponents. For example, Sahlberg (2006) argues that the standardization of learning and teaching runs contrary to the expectation of enhanced economic competitiveness that emphasizes innovation, integration, and interaction. Similarly, accountability's promise of equity may be minimized by the narrow focus on tested subjects and the withdrawal of resources from schools that need them most (Harris 2012). While an economic vocabulary is used to both motivate reform and solve education problems, it may not be as effective, given these criticisms.

Aside from the discourses and pressures that an economic perspective provides, there too are material and financial interests in the continuance of school accountability. In many societies, instructional activities in K-12 schools depend on the use of texts and tests obtained outside of schools (Rowan 2006). A whole testing industry is created, inclusive of standardized test producers, testing preparation agencies, and analytic testing devices (Verger and Parcerisa 2018; Williamson 2016). For example, Toch and Tyre (2010) estimate that test development firms form 20 percent of an almost \$1 billion state accountability market in the United States. Moreover, similar organizations also sell education improvement services and platforms to countries, local governments, and individual schools (Hogan et al. 2016). Thus, vested economic interests increase the stakes for the continuance of standardized testing and accountability (Carnoy 2016).

Technological and Methodological Advances

Inasmuch as political and economic pressures advance the rationale for school accountability, such practices would not be accessible if not for technological and methodological advances in testing, evaluation, and analysis. In terms of testing, at least three factors have facilitated the greater use of standardized tests for school accountability: (a) methodological and technological advances in psychometrics, (b) digitalization of tests that make them easier to scale up, and (c) the greater sophistication, precision, and affordability of test systems that help schools and school systems adopt such tools (Verger and Parcerisa 2018). While data in schools have existed since the mid-nineteenth century in the form of budget records and results of oral and written examinations (Lawn 2013; Wiliam 2010), they have since been ubiquitous given increased test score reliability and precision, and the advances in item response theory, digital modes of assessments, and linking of longitudinal data (Embretson and Reise 2013; Phelps 2009; Toch and Tyre 2010).

Aside from testing, the use for evaluation has also widely been practiced through “value-added models” that compute a teacher’s unique contribution in promoting student achievement gains while controlling for students’ background and prior ability (Konstantopoulos 2014). Researchers have shown that teachers evaluated as providing high value-added contributed to students who were more likely to attend college and earn higher salaries, thus providing credence to such means of evaluating (Chetty, Friedman, and Rockoff 2014). However, other researchers caution against this use of test results for evaluation as many other factors beyond the teacher affect the students’ learning and achievement gains (Darling-Hammond, Amrein-Beardsley and Haertel 2012). Such innovation, nonetheless, has important repercussions on the potential to use test scores not only for holding schools accountable but teachers as well.

In a way, these enhanced technological capacities have expanded the types of analyses that can be done and the speed with which interventions can be made (Agasisti and Bowers 2017; Lawn 2013). Going beyond data for school accountability, data visualization tools provide big-picture knowledge about education systems while learning analytics platforms help track and predict student performance (Williamson 2016). These different facets of technological advances in assessment, evaluation, and analysis all contribute to accelerating and normalizing the use of standardized tests for global school accountability regimes.

Changing Social Pressures, Resistance, and Pandemics

From the foregoing discussions, it may seem that school accountability has and will continue unabated, but societal transformations and shifts are also changing these dynamics. Seemingly linear and hegemonic relationships between international organizations and national policies (and national education systems and local schools) are better seen as entanglements that have reciprocal directionalities and global/national/local imbrications (Grek 2020). Movements, negotiations, and resistances happen at different levels, and external societal shocks—like a global pandemic—also contribute to new policy directions.

Showing change and resistance, former US Assistant Secretary of Education Diane Ravitch (2016:18) has since become a strong critic of school accountability—highlighting how the once laudable effort to improve education has turned into an “accounting strategy” that simply measured schools then rewarded or punished them. She was at odds with its production of fear and obedience among teachers, all while no theory of instruction belie it. Many other researchers also point to limitations in high-stakes testing in the United States and in other parts of the world: limitations that include the misuse of data for reductionist purposes, the narrowing of outcomes to those measured through tests, and the strategic gaming for perverse incentives (Figlio and Getzler 2006; Lingard and Steven 2016; Pinto 2016).

Such dissatisfaction and resistance do not just come from policymakers and researchers as teachers, parents, and students are also rising against standardized testing. Early grassroots opposition to NCLB were present in Parents United for Responsible Education in Illinois and the Massachusetts Coalition for Authentic Reform in Education (Hursh 2005). In 2011, the Save our Schools March brought thousands of people to Washington DC to protest the “testing mania,” which led to the formation of United Opt Out that in 2013 led to grassroots anti-testing movement with events in Seattle, Denver, Chicago, New York, and other places in the country (Neill 2016). In New York, for example, parents of both political persuasions participated, with Democrats

noting accountability has reduced schooling quality, limited teacher evaluation to tests, and opened opportunities for edu-business to profit from schools, and Republicans being at odds with federal incursion into the domain of local communities and politics (Lingard 2021). In 2015, New York Governor Andrew Cuomo established a commission to investigate testing, which led to a 4-year moratorium on using test scores to evaluate teachers (Neill 2016). These are only some ways that social pressures are changing how to hold schools accountable, and these, Lingard (2021) argues, cannot be divorced from the social background of anti-globalization, ethno-nationalism, and anti-big state.

Another societal context that may ultimately change the trajectory of test-based school accountability is the COVID-19 pandemic. While advocates emphasize the need for information about students that can hopefully guide classroom instruction—particularly for marginalized and disadvantaged students—others are wary about how these data may be used and can potentially further exacerbate inequities (National Academy of Education 2021). Spurrier, Aldeman and Schiess (2020) argue for the need to track student performance to know the extent of learning loss and the students most disadvantaged, while the National Academy of Education (2021) argue that such summative assessments cannot accurately be used to rate schools, much less hold these schools accountable. In 2020, the federal law that mandated testing for at least 95 percent of students had been waived together with other testing provisions (Spurrier et al. 2020), which may be a sign of potential changes to come for a more holistic judgment of schools or may simply be a bump in the regime of school accountability (Gottlieb and Schneider 2020).

Accountability Beyond the School

While school accountability practices have consequences for student learning, staff behavior, and organizational decisions, the consequences also go far beyond the school in the same way that macrosocial processes are influential to it. The processes in schools have consequences for social stratification and the societal discourses on education, work, and the state. Here, I briefly note some ways that accountability can influence larger social issues.

An open debate is whether standardized testing and school accountability can help reduce social stratification or further exacerbate it. On the one hand, the use of accountability measures may provide greater focus on instruction, more resources for schools, and better opportunities to learn for students (Grodsky, Warren, and Felts 2008). If accountability does influence increased learning, the positive consequences can also extend to individuals' economic trajectories and society's progress (Deming et al. 2016; Hanushek 2019). On the other hand, researchers have also documented accountability's reproduction of inequality, particularly as low-performing probation schools narrowly focus on policy

demands for students who are tested in the subjects they are tested in (Diamond and Spillane 2004) and incentives may be problematically set in a way for students farthest away from passing to be most disadvantaged (Neal and Schanzenbach 2010). Moreover, the demoralization, and in some cases, closure of “failing” schools has adverse effects on low-performing, low-income, and minority students—thus exacerbating the social divide (Bifulco and Schwegman 2020; Kirshner, Gaertner, and Pozzoboni 2010). Despite these, however, advocates question what other alternatives there are to enforce accountability.

Societal discourses on education, work, and the state may also change as a function of the accountability practices instituted. After all, to institute school accountability suggests different discourses: First is a discourse on education as a rational and measurable enterprise that highlights standardization and academic outcomes—in some ways sidelining social, emotional, technical, and vocational skills that are arguably equally important (Gunzenhauser and Hyde 2007). Second is a potential discourse on the failing work of schools and teachers that needs to be externally managed and held to account (Tuinamuana 2011), which may contribute to negative perceptions regarding the work and profession of teaching. In a study of 50 countries, high-achieving students in countries with test-based accountability policies were less likely to expect to work as teachers, suggestive of the greater hurdle to attract top talent to the teaching profession (Han 2018). Third is a transformed discourse on the amount of state control over local institutions and professions, such as schools and teachers (Ingersoll and Collins 2017; Kim and Yun 2019), highlighting the increased incursion of state oversight and the naturalization of this practice. A fourth discourse can revolve around placing the blame of inequality on schools rather than larger structural forces (Diamond and Spillane 2004). Thus, new lines of future research on accountability can further investigate how accountability has consequences beyond students and schools, making it an important object of study for inequality, stratification, and social change.

Conclusion

As this essay highlights, the dynamics of change and stability of school accountability can be best understood through organizational and ecological factors. Accountability has multiple purposes, carry multiple meanings, and operate across multiple scales of organizational, political, and economic actors. Moreover, the form and extent of accountability are transacted outcomes not just of the dynamics within the school ecosystem but also as negotiated with actors and factors outside the school. Similarly, while other researchers concentrate on the changes accountability policies bring schools and students, a sociological account is attentive as well to the larger social changes brought forth by policies.

Four important insights emerge from a sociological reading of the school accountability literature. First, while school accountability's manifest function is to measure performance to initiate improvement, it cannot be separated from its latent functions such as its performativity to address institutional pressures. Second, accountability implicates a multiplicity of individual and institutional actors acting and reacting, resisting and negotiating—and thus, research must be attentive to the different levels and domains of accountability from distal policymakers to on-the-ground educators. Third, while school accountability is often studied as a single policy, the reality is that dynamic transformations and negotiations happen in how accountability is transacted, used, and implemented. Lastly, this practice can only be fully grasped when incorporating the political, economic, and social ecology that sustains the practice, and to which the practice has a metabolic relationship with. Thus, to study schools and accountability practices includes studying what happens outside the organization of schools.

While empirical policy research has focused on school accountability's positive and negative consequences, this review suggests many other pathways for future studies. One direction is to study alternative forms and permutations of school accountability, and how stakeholders make sense of these alternatives. For example, the rise of “test-optional” policies can provide a starting point for understanding people's meaning-making of such practice (Furuta 2017). Another place sociologists can contribute is through understanding the discursive shifts on such policies. Using computational methods such as natural language processing, one can study how the public acceptance or teacher resistance of accountability have shifted through the years. While quantitative studies focus on the accountability policy as an exogenous factor, future studies may also look into societal changes (e.g., COVID-19 pandemic) as organizational shocks that impact accountability regimes and student learning. Finally, future studies must also show how the practice itself—or the lack of it—is changing society through social stratification and societal discourses.

This perspective of school accountability as multivalent, multiscalar, dynamic, and ecologically metabolic provides policy scholars in general, and education researchers in particular, a means of viewing and interrogating other policies with a fresh set of eyes. The contribution of sociology as a discipline to policy studies is its viewing larger macrosocial changes and attending to microsocial interactions, resistances, and negotiations. An important place to start for a more holistic understanding of policy is through incorporating *organizational* and *ecological* questions to policy discussions. This essay presents a project and an invitation to uncovering new methods and epistemologies for understanding policies with a far wider breadth. While policies must still be

analyzed for their effectiveness, efficiency, and equity, they must also be understood in terms of their various functions, multiple levels of intervention, negotiated transformations, and wider ecological influences and repercussions.

ENDNOTES

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