Safety Science, Innovation, and Change in a State Child Welfare System: A Case Study

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In March 2019, 19 Minnesota child welfare managers, supervisors, and directors were interviewed about their experiences with Collaborative Safety (CS) activities. Over the two years, interviews found that by focusing on systemic issues and data collection, Minnesota staff are shifting away from a "who did what wrong when" focus to one of system and culture change. In short, these interviews suggest this joint project based on Safety Science is helping Minnesota reengineer both its child welfare system and workplaces.

Eric Dean, age four, died on February 28, 2013, in Pope County, Minnesota, despite many attempts by child protection workers to intervene. Widely publicized, Eric's death led to investigations into the state's child protective services (CPS) system. The resulting Governor's Task Force on the Protection of Children concluded its work March 23, 2015, with 93 recommendations for revamping the state's CPS system.

What lay behind these administrative steps were the implications that Eric's death had for the state and county agencies that make up Minnesota's child welfare services. The turnover rate at these agencies increased. Frontline workers, managers, and supervisors functioned in fear and worked in a "culture of blame." In Minnesota, child welfare staff felt that, when critical incidents like a child death occurred, the emphasis was on identifying individual culpability and the drafting of new policy designed to prevent such incidents in the future. Staff believed inquiry into critical incidents were exercises in finger pointing and accusations of blame, i.e., "Who 'caused' Eric's death?" In Minnesota, at that point in time, the feeling was that someone, one person or more, had failed at their job and that failure caused Eric's death.

These events led to the employment of a consulting group, Collaborative Safety, LLC (CS). This group applies the principles of safety science to human services organizations. This idea gained national attention among child welfare workers when it was discussed in the 2012 Federal Commission to Eliminate Child Abuse and Neglect Fatalities 2016 Final Report (Children's Bureau, 2018). However, an interest in bringing safety science ideas to the child welfare community goes back to 2005, at least (Munro, 2005).

The CS safety science model emphasizes activities designed to produce workplace change. First, consultants train staff in a variety of data information activities that are designed to move beyond initial attempts to find the person who "caused" the incident and take a second look at how and why the incident occurred. This opens up formerly "hidden" aspects of the workplace or in the systemic nature of the workplace. In short, these activities are designed to help staff recognize how their work is impacted by the work of others throughout the organization.

Recognizing the interrelationships and inter-linkages among various parts of the organization allows staff to take a new look at their work and identify problems they may not have seen before. All these elements are documented allowing for the creation of "empirical" data or, as staff say, "evidence" that they can use to lobby for change.

The CS safety science model emerged from the study of critical incidents in high-risk industries like aeronautics, health care, and nuclear power. It starts from the assumption that in high-risk organizations, rarely is any one employee empowered enough to be solely responsible for a critical decision. In short, decisions in complex systems and organizations like a child welfare community typically depend on several factors occurring near or at the same time. Tragedy takes place due to a cascade of events; only in retrospect can they be linked back to a single actor. Using a number of information-gathering activities provided by CS consultants, child welfare staff can build an understanding of how and why such a complex cascade of events took shape.

This information-intensive, system-based view of work offered by the CS model is designed to provide insight into what often seem to be hidden workplace processes. This can help reduce the widespread fear child welfare staff have that critical incidents are caused by one individual or a group of individuals. In removing or reducing the fear of being identified as the source of failure, the CS model allows workers to better consider how the system itself can function more effectively and safely (Lachman & Bernard, 2006).

This paper will discuss the initial introduction of the CS safety science model to child welfare decision-makers in the CPS field at state and county levels in Minnesota since 2015. The research is based on a small sample of 19 child welfare managers, directors, and supervisors who were interviewed about their experience with this model.

Literature Review

The study of staff and workplace organizations has long focused on the notion of workplace culture involving roles, values, and norms. As

Susan Wright (1998) and other anthropologists have long been arguing, the problem with most of these approaches is that they fail to focus analytically on the often changing, shifting nature of work and the workplace. To focus on the constructed nature of experience is to focus on the relation of knowledge and reality to social contexts (Berger & Luckmann, 1966).

Th is line of thought has profoundly influenced the study of social life and the study of organizations. With it, actor and agency have been brought into focus. Any adequate analysis must now include not only the description of social contexts but also the roles people play in the formation and maintenance of these contexts. Th e notion of context and its relation to the constitution of knowledge have challenged traditional divisions between the subjective and objective environment. Analysis can now focus on the study of the assumptions and definitions that underlie social life and interaction for the actors themselves. Within any bureaucratic setting, both staff and the anthropologists still are answering the same basic question posed by the symbolic interactionists years ago: "What's going on here?" (Goff man, 1974, p.8). Th e focus of this paper is on the meaning the workplace has for those who inhabit it. What we are not interested in here is surveying an organization-wide consensus on values. We are looking at a small group of staff and exploring in some detail how they understand some central issues of the workplace.

The situation we studied involved the introduction of new ways of understanding work and workplace relationships provided by CS and their consultants. This way of understanding the workplace, the new emerging understanding of relationships within the agencies, were used to address the central issue that arose after Eric Dean's death: the climate of blame. These new understandings attempted to shift attention from the individual's choices and actions to the responsibilities shared by all participants in the process of decision making.

We argue that safety science concepts and activities have an important rhetorical function. The Minnesota agencies have introduced activities (second story, systems mapping, and organizational

learning) that have provided an opportunity for staff to re-think issues of blame and individual responsibility. In part this re-thinking comes from seeing work and workplace processes more systemically and scientifically than they were previously seen. These concepts worked to shift the notion of action in the workplace from the sole responsibility of one person to a process emerging from a shared sense of responsibility.

Literature Review: Safety Science

Safety science as we know it today emerged largely out of the 1950s large-scale push toward corporatization and industrial psychology (for safety science's recent history, see Hollnagel, 2019). During this time, the concern in safety science was focused on the individual and how to protect and prevent the individual from causing harm to a firm or industry. As the last century ended, safety science broadened to become more interdisciplinary, but has kept its focus on the management of individual risk. Still, there is a sense that this focus has reached the point of diminishing return, both analytically and practically (Dekker, 2018).

Thus, attention recently has turned to how broader sociological categories like systems, organizations, and culture(s) and their role in accidents and tragedies (Galanti et al., 2021). Also recently, safety science has imported ideas like system complexity in order to handle micro-macro issues (individual to society issues) related to safety in the workplace (Hollnagel et al., 2015). As a result, safety science has begun to redefine its notion of responsibility to include more than individual culpability. It is exactly this that the staff we interviewed believed. They noted that focusing on just culpability masked both what actually went wrong and hindered positive organizational change—change that would led to fewer, not more, accidents and tragedies at work.

Accident models in safety science now attempt to account for adverse events as emerging from systems; furthermore, they do not

focus on single or simple cause factors, but rather attempt to understand what may have gone wrong within the system itself (Dekker et al., 2008). Instead of concluding that a worker did not follow policy, for example, such an analysis can reveal instead how competing contingencies and various resource constraints prevented that worker from following policy. In child welfare, systemic accident models can provide an analytical framework that enables us to learn from complex adverse events such as child deaths and to make more effective changes to the systems in which such deaths occur.

Nevertheless, safety science remains a practical, empirical discipline much like engineering has (Dekker et al., 2010). Things like informant understandings, values, and beliefs are still seen as ephemeral and therefore relatively unimportant when it comes to understanding accidents and tragedies (Meyers et al., 2014). In safety science, it is the autonomous acts and choices that still seem to count because their actions comprise "empirical facts". Therefore, these individual acts remain their primary focus of what makes up systems themselves (Le Coze et al., 2014).

Literature Review: Collaborative Safety

CS is a consulting group that provides advice for human service institutions in the United States based on the field of safety science. They provide clients with face-to-face meetings, seminars, lectures, and orientations designed to help staff recognize and collect data from seemingly hidden workplace processes. Uncovering workplace processes takes place when staff, working individually and in groups, use these activities to determine in detail what actually happened in a critical incident and why staff decided to take certain actions. The focus is not on "who did what wrong," but on what actions were taken and why they were taken. This focus opens up the staff member's view of the job with its constraints and potentials for action.

A critical incident review consists of "systematic mappings" that attempt to move from informants' understanding of the first story (i.e., who did what wrong that caused an incident) to the second story (i.e., a view that incorporates multiple perspectives and points of view). The idea of a second story is borrowed from safety science by Collaborative Safety. The second story, as Cook and colleagues (1998) describe it, attempts to capture:

> How the system usually works to manage risks but sometimes fails. When researchers pursue the second story they broaden the scope of inquiry in ways that lead them to identify systemic vulnerabilities that contribute to failures. (p. 3)

Everyone involved in the incident is asked to reflect on what happened at the time. Staff then are asked to identify all of the steps that were taken during the incident and why these specific steps were taken. Then these are compared and discussed. These meetings allow staff to examine in detail what happened and why various steps were or were not taken.

Systemic mappings also bring to light variations in unit goals and missions that can exist in complex organizations. Staff in only one unit of the organization may not be aware of how the goals of another unit may impact their own work. It is this identification (and documentation) of work in an organization that can reveal the complex cascade of events that make up critical incidents (Leveson, 2001). They can reveal things that to the staff involved do not seem relevant to whatever the incident was. All these activities provide staff with the knowledge to rethink in a systemic way how work occurs within their organizations. This information can be used not just in incident reviews but in a variety of contexts like leadership/supervisory meetings, performance evaluations and quality assurance discussions. For the more pragmatic, procedural details regarding this review/mapping process (see Hengelbrok et al., 2019).

Research Design and Methods

Site Description: Minnesota Child Protective Services

Minnesota's CPS system consists of a network of private, public, and Native American Tribal agencies. These organizations, moving from the local, county levels to the state level, range from providers to frontline organizations working with clients. These various and often quite different entities are coordinated by the state's Department of Human Services (DHS). Our informants were upper- and middle-level administrators. They were responsible for ensuring that frontline organizations run according to the various laws and policies that regulate their activities. They set barriers and boundaries that CPS staff had to oversee and live by. Laws and regulations passed by the legislature were considered by these administrators as difficult if not impossible to change. Beyond the legislature, the media and various interest groups could and did impact CPS work. These groups, particularly the press, could influence the public perception of CPS's day-to-day work (Gainsborough, 2009).

Data Collection

The study used a qualitative research design of in-depth interviews and thematic analyses of data. Over two days in March 2019 (with one subsequent phone interview), 19 state and county child welfare managers, supervisors, and directors were asked face-to-face by the first author their experiences, negative and positive, with what the CS model brought to their organizations. They were also asked to identify the most important challenges the Collaborative Safety model posed for their staff and organizations. Questions then focused on how these managers reinterpreted and reframed the critical incidents. The interviews explored their reinterpretations taking into account what they had learned about CS work activities. It was these themes, ones revolving

around workplace accountability and accidents prior to and after CS came on the scene, that structured these interviews and research.

In this ethnographically informed approach, the saturation principle was used: Informants were interviewed as long as new phenomena was recorded and appeared in the data (Persson, 2000). All the managers agreed to participate in the study and, before their interviews, each participant signed a consent form. The interviews were documented initially by hand-written notes and audio recordings which were later transcribed verbatim. The Minnesota Department of Human Services at the time of this study had no formal IRB process in place. This is still apparently the norm for such state departments (Mallon, 2019). The study's informants were contracted by email and telephone, agreed to participate and each signed an informed consent form before they were interviewed in person. While it is not entirely possible to mask locale and historical events, no real names have been used here and all work positions, with one exception, have been assigned randomly. After the interviews, terms like "social work," "child death," and "reorganization" (and other similar terms) were used to search academic data bases like JSTOR. For quality assurance, some journals were searched individually. Article and book bibliographies were also consulted for relevant sources.

Study Limitations

The limitations of this preliminary research need to be discussed. First, this research was paid for by CS to assess the impact of their work with one of their clients. The assessment was formative in nature (Scriven, 1967). The research was designed to provide information about how those CS trained understood and made use of the model CS introduced. How and in what ways did they make use of the model? How was their understanding of the workplace impacted? As a formative assessment, this information was collected by CS to help facilitate its implementation. We looked at how understandings of the workplace

changed through CS activities. Again, we stress this research was conducted early in the process and, as we will say below, the numbers interviewed were few.

The number and kind of informants interviewed were limited. The informants themselves represent just one "slice" of the organizations and systems they are part of, that is, the supervisory level. However, like frontline staff, these administrators could (and were) held individually responsible for the actions of their employees. Further the interviewees were chosen in part because they were the ones who had the most exposure to the Collaborative Safety model. Having said all this, it is striking the extent to which they all saw CS as providing a legitimate rhetoric to explain what happens when a tragedy strikes a child welfare organization.

Entering the Workplace: A Culture of Blame

When CS began working with Minnesota CPS, interviews revealed that agency workers agreed that Eric Dean's death and the subsequent media stories and official investigations amplified a "culture of blame." Upper- and middle-level administrators at the CPS agencies agreed that the overwhelming atmosphere at the agencies was one of fear. A mistake had been made that resulted in a child's death.

When CS introduced their model, the culture of fear could be seen in a number of ways. One administrator described the situation prior to the introduction of the CS model as one that stressed individual culpability. In the Minnesota agencies, critical incidents were seen primarily as the result of an individual or individuals' failure to perform correctly. This led to the search for what staff failed to do and the assignment of culpability. For example, one woman who had CS training was assigned to introduce the model to staff working in other units. The most typical response she received was staff disbelief that their workplace could be shaped by something other than finger pointing. She described her experiences this way:

> We talk to different groups…members from the county and from licensing because that's everybody's initial response. 'Yeah, but you know we have to…answer to so and so…You know, they're going to want …to blame somebody.' That's what we've always done.

She went on to say that when she introduced the CS model, someone would say, "This is how it's always done [here]. Someone is always looking for someone to blame." This was a workplace shaped by the notion that problems and failures happen when individuals make bad choices. Moreover, and equally important, this notion of individual culpability and accountability was thought to run in only one direction: down. One of the administrators interviewed put it this way:

> The notion of accountability upward is not part of who we are. We have accountability. What's collateral accountability that goes down but not necessarily up. And that's an organizational structure, organizational value that has to change in order for CS to be successful and to be widespread.

Traditionally, the child death review processes in this community tend to be downward-focused and compliance/event-driven (Hochstadt, 2006). They also tend to emphasize linear cause–effect trajectories and single contributory factors and to attribute causation to already "broken" components (for example, lack of policy compliance or "negligent" social workers) instead of understanding the whole complex or system of events and actions that lead to any specific result (Lundberg et al., 2010; Dekker et al., 2011). This overemphasizes "quick fix" solutions to accidents and tragedies, such as changing or writing more policy and blaming individual child welfare workers (Dekker, 2018). In short, current analytic methods utilized by child death review teams cannot encompass all the interactions that constitutes any complex system (Dekker et al., 2011).

The CS safety science model provided alternative ways to explain why things went wrong. We can see how staff responded to this model as another administrator talked about the impact the model had on her experience of work:

> For as long as I've worked for this company that has…just been how we've operated. Somebody does something wrong and…it must be solely their fault. Like that is the approach we've taken and so this [Collaborative Safety] has been really, really great for us in our team, at all different levels, to step back and go, 'Wait a second'…It can't solely be those 20 people…like individually being accountable for that mistake. Like there's something bigger here, you know, that we need to be responsible for and take action for. It's been really great in that way for us to kind of shift our thinking.

Blaming and finger-pointing were so widely practiced that some administrators thought it went on between the various units and departments as well. One administrator described it this way:

> My Gosh…we have seen this over and over again. The very first thing that [the] Department of Health did was come to the office [and] point their fingers at all of us. 'You weren't masked' and 'You didn't have face shields' and I'm like 'No, we didn't because that wasn't required before this'…The articles in the paper blaming long term care, blaming nursing homes…Your mind gets turned on to looking at things differently when you see it right in the headlines. They clearly blame the provider [at] any opportunity.

Newspaper exposés contributed to this finger-pointing and, according to this administrator, helped fracture the idea of inter- and intra-agency shared purposes and shared standards of care. "Deficiencies" were seen by staff as signs of individual failure. This reflects a fixation with individual decision-making and not following the rules as the primary cause of critical incidents (Helm, 2013). This fear of deficiencies

arising from bad individual choices was also seen by our informants as inevitable.

The belief that individual culpability has caused incidents is made much easier because of the staff members' belief in themselves as caring, responsible professionals (Taylor & Whittaker, 2018; Yamatani et al., 2009). What CS would attempt to change, according to the staff, was a workplace that explained failure almost exclusively in terms of individual culpability. Instead, the CS model would focus on teaching staff to analyze their own work in new ways. Moving beyond finger pointing, this model hoped to teach staff to understand system analysis and allow staff (via empirical data collection) to create a system of institutional self-repair and reinvention.

Discussion of Findings: Learning to See the Second Story

The CS concepts of "second story" and mapping were pivotal activities for Minnesota staff. The first story is a story of blame and individual failure. It is a story about what staff did wrong. The second story is different. It is a story about what actually happened and why people had taken those actions:

It [CS activities] has helped me to pause and ask for the 'way' behind why we do things. Our work tends to lend itself to creating a lot of policies and procedures. It is helpful to consider whether these are helpful or creating more bureaucracy that hinders productive work.

Staff involved in the CS project framed these retellings as a way to look "deeper" into what work and jobs actually entailed because the approach involved multiple perspectives. The reframing allowed staff to move from a "primitive" explanation of what happened (i.e., individual causation) to a more detailed, nuanced analysis. We can see this deeper look through one administrator's view: "It [the CS project] has caused our staff to look beyond the immediate elements of an incident to the factors which could have contributed to the background of the incident."

Critical reviews and mapping not only opened up routine work practices for closer inspection, but were also seen by staff as a way to produce a certain kind of data: empirical data. Empirical data was valued by the staff because anecdotal data, springing from personal experience alone, was not seen as "strong enough" to initiate institutional change. The CS safety science model, however, allowed staff to identify specific issues that happened repeatedly. As one of the administrators explained, "[as we are going through these] mappings…. we are identifying these barriers over and over again; we've got some data [now]…to show [that] these are the issues that we keep encountering." They continued:

We anticipate at the end of this year, we're going to have 30 to 60 critical incidents with [their] systemic influences that say yes this one…And that gives us more of an imperative to do something about it, rather than just shelf it.

Mappings in the staff members' views did not depend solely on one source or one set of data but reflected a number of different sources. The result was that the CS model allowed staff to base their assessment of workplace practices on what they saw as empirical data (i.e., science) rather than mere personal observation or opinion.

This collection of empirical data also was valued by staff because it promised to deal with another organizational problem: the endless creation of new policies designed to reduce individual errors and prevent critical failures. A number of administrators commented that one of the most common management responses to the discovery of a problem or failure was to create new (i.e., additional) policy. This response leads to a proliferation of polices that, most staff believe, may not necessarily be followed. Staff valued the CS safety science model because it allowed them, as one administrator said, to "use data from all those mappings and all those critical incident reviews to say what needs to change." Another staff member reminded us: "Eventually we can't get there [changing policy] without all learning together and being more educated…and practicing this. We are not going to be able to get to

policy until all those things are done." The collection of empirical data was important not simply because it reduces the chance that staff experiences will be dismissed as anecdotal. This was also important because staff saw it as one of the few unquestioned (i.e., scientific) data points they had to now question the bureaucratic machinery that can lead to unnecessary policy proliferation.

For staff, the activities of mapping and the subsequent accumulation of empirical data seemed to open the door for an alternative understanding of causation and a new view of the workplace as a system. This opened up space, it seems, for staff questions about how different jobs, goals, and practices were linked together and impacted decision-making. This was designed to help staff understand how cascades of events can contribute to accidents and tragedies.

Recognizing the Role of System in the Workplace

One aim of the CS program was to help staff understand the impact that systemic elements could have over any one individual's work. For the staff, this required moving from understanding work primarily as a matter of individual performance to an awareness of the impact that system can have on one's job performance. One administrator described the change this way:

> Why did [this failure] happen? Is there something we need to change in our system so, so a bad result doesn't happen again? We want to look at our system and make sure that our systems make sense for people [in them] …That was probably one of my biggest takeaways.

Here, we see a shift from job performance based solely on the individual alone to the realization that systemic features of the workplace, up and down the organization and across agencies, can impact job performance.

The collection of data about why certain decisions were made allowed staff to see the impact of systemic work processes have on individual decisions and actions. For example, one administrator believed that the collection of data, allowed staff to see, "in positive way that [we] are getting at some workplace conditions that might have our blind spots before…and I think [that] is what we're realizing". The CS program, particularly the activity of "mapping", enabled child welfare staff to expand their notions of responsibility and accountability into other areas and directions. Here's how one child welfare worker explains this:

> Even though I have now a much broader understanding of all of the influences, they can at least say… maybe I did or didn't do this piece and I could do that differently next time, but I also have a broader sense of how the system impacts [things] and what other system changes can be explored as a result of whatever. So, for me, I found increased buy in from staff in terms of their own accountability.

Recognizing all or many of the steps involved in the child care process allows staff to move to a more comprehensive understanding of what happens when things go wrong.

This more comprehensive understanding emerges from the careful study and "mapping" of why certain decisions were made and certain actions undertaken. For example, one administrator saw the CS activities as vehicles to "look deeper" into work processes, saying, "It has caused our staff to look beyond the immediate elements of an incident to the factors which could have contributed to the background of the incident." Creating a way to shift from the first story of individual responsibility (i.e., culpability) to the second story allowed staff to recognize the role systems and structures can play in everyday work processes. Essentially what is supported here is an exercise in higher-order critical thinking as it applies to one's own job, workplace and organization (Cull et al., 2013; Douglas, 1986). To ask "why we do things," and why we make the decisions that we do, is a critical step toward understanding the workplace as a system.

Understanding Cascading Effects and Failures

Recognizing all or many of the steps involved in the child welfare process and the context in which these steps are embedded allows staff to develop a different, more comprehensive understanding of why things go wrong in a workplace. It seemed to shift attention from what the worker did, which they often saw as "the last step" in the process, to include any of the factors that might have influenced the decision to act. In effect the Collaborative Safety, safety science model helped staff rethink what causality means in the workplace. It does so in two ways. First it reintroduces context as an explanatory factor in the acts of others. Second, it allows staff to see that there is no predestined, no "natural", no single right or wrong explanation for most accidents. While we sometimes think that every action is a response to another act, this can be short-sighted because it often overlooks the complex nature of human action. What the CS safety science model brought to these agencies was a more neutral, shared way of talking and thinking about critical failures like a child death. The CS model brought a language into the workplace that shifted the focus from the individual to the systemic nature of the processes and practices involved in child protective services.

Implications: The Collaborative Safety Model and Culture Change

Attempts to change culture (and to assess culture change) are typically viewed with suspicion by anthropologists because for them the culture of others is both refractory to analysis and interpretation and difficult to retrieve from informants (Wright, 1998). We also understand culture as constantly changing as people negotiate "what's going on here." We do not believe that culture can be reduced to any kind of consensus. This makes the academic model of culture radically different from the everyday definitions most people use. It is clear, nevertheless, that the CS safety science model is being accepted in Minnesota as a useful way

to re-think workplace practice, critical failure and change. There are many difficulties still to be addressed before we can say any large-scale change is occurring. A safety culture is still a work in progress. More staff need to be trained in the CS model. Policy and regulation are still seen by many as a major obstacle to change. No one thinks that finger pointing has been eliminated. However, there are signs that many of the staff who have been trained find it a promising way to think about and create change.

Still, any movement away from narratives of blame and individual culpability was welcomed by everyone we talked to. For the Minnesota CPS staff the CS safety science model was more than a way to avoid personal culpability. It also gave them a new way to understand their work and their workplace. It exposed features of their work they had not recognized before the Collaborative Safety project began. It opened their eyes to the world of context and work processes that they have come to see as shaping their everyday work. Instead of seeing work based on individual performance alone, the whole organization becomes open to their inspection, analysis and potentially improvement. The critical incident reviews and the shift from relying on first stories (i.e., blame) and moving to second stories (i.e., how and why actions were undertaken) were highly regarded. While there are still staff that have not been trained, the model is gaining acceptance. The model's potential to alter the proliferation of policy was welcomed too although many still despaired of ever stopping the bureaucratic machine.

The challenge, all the informants agreed, was how to keep the momentum going and so diffuse the CS model throughout all their organizations:

> So next steps, some of them are falling into place. The training and exposure we've provide…has been picked up by the adult protective services area and they're working with [Collaborative Safety] …bringing us to their work area, [the] inspector general's office, same thing. Hennepin County,

> same thing. So, you know, there's this culture change that can be hard for people to grasp onto and really hold onto.

Almost every one of the trained staff we talked to hoped that the CS model take root, grow and help unite the various constituents' units and agencies with a common safety culture.

Another positive change that the CS model brought to the Minnesota CPS was a new understanding of how inter-agency linkages at the state, local and county level worked. Inter-agency relationships among the various units with seemingly many different problems, missions and goals could be tense at times. This was particularly true in times of accidents and finger-pointing. The CS model enabled staff, sometimes for the first time, to see how all or many of the various units and agencies, with their different missions and goals, could impact their own work. As one agency manager said:

> The CS model gave us a framework to think about…the greater impact…that [is] the systemic level and that we often put workers in a bind with that…As somebody who's ready to work with the workers [I am] supportive of taking that burden from their shoulders and sharing it throughout the system.

From state to local levels, the CS activities are seen as facilitating inter- and intra-understanding and so have helped to defuse some "hot button" situations. The hope now is that the collection of empirical data, inherent in the CS model, could lead to positive changes in policy for staff, their clients, and their clients' families.

We are beginning to see a shift from explanations of accidents and tragedies that stress individual culpability to a better, more holistic understanding of these events. As one senior director explained, "Nobody cares whose fault it is at end of the day, at least ultimately that doesn't matter (laughs) I knew [having said this that] I have evolved." Many factors can impact the eventual success of the Collaborative

Safety model in Minnesota—but for those it already has reached with its potential to lead to legitimate change, it is welcomed.

References

Berger, P., & Luckmann, T. (1966), *The social construction of reality*. Anchor Books.

Children's Bureau. (2018). U.S. Department of Health & Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. *Child maltreatment 2016*. Author.

Cook, R., Woods, D., & Miller, C (1998). *A tale of two stories: Contrasting views of patient safety*. National Patient Safety Foundation.

Cull, M. J. Rzepnicki, T, O'Day, K., & and Epstein, R. A. (2013). Applying principles from safety science to improve child protection, *Child Welfare, 92(2)* 179-195.

Dekker, S. (2018). *The field guide to understanding human error* (3rd ed.). CRC Press.

Dekker, S., Hollnagel, E., Woods, D. & Cook, R. (2008). *Resilience engineering: New directions for measuring and maintaining safety in complex systems.* (Final Report, November 2008). Lund University, School of Aviation.

Dekker, S., Nyce, J., van Winsen, R., & Henriqson, E. (2010). Epistemological self-confidence in Human Factors research. *Journal of Cognitive Engineering and Decision Making, 4*(1), 27-38.

Dekker, S., Cilliers, P., & Hofmeyr, J. (2011). The complexity of failure: Implications of complexity theory for safety investigation. *Safety Science, 49*, 939–945.

Douglas, M. (1986). *How institutions think*. Syracuse University Press.

Gainsborough, J. F. (2009). Scandals, lawsuits, and politics: Child welfare policy in the US states. *State Politics & Policy Quarterly, 9(3),* 325–355.

Galanti T., Di Fiore T., Fantinelli S. & Cortini M. (2021). The role of organizational support in non-technical dimensions of safety: A case study in the automotive sector. *International Journal of Environmental Research and Public Health, 18(5)*, 2685. http://dx.doi.org/10.3390/ ijerph18052685

Goffman, E. (1974), *Frame analysis: An Essay on the organization of experience.* Harvard University Press.

Helm, D. (2013). Sense-making in a social work office: An ethnographic study of safeguarding judgements. *Child and Family Social Work, 21*(1), 26-35.

Hollnagel, E., Wears, R., & Braithwaite, J. (2015). *From safety-I to safety-II: A white paper. (Technical report, January 2015*). University of Southern Denmark.

Hollnagel, E. (2019). The gilded age? (In J.C. Le Coze, Ed.), *Safety science research: Evolution, challenges and new directions*. CRC Press.

Lachman, P., & Bernard, C. (2006). Moving from blame to quality: How to respond to failures in child protective services. *Child Abuse & Neglect, 30*(9), 963–968.

Le Coze, J.C., Pettersen, K., & Reiman, T. (2014). The foundations of safety science. *Safety Science 67*, 1-5.

Leveson, N. (2001). Applying Systems Thinking to Analyze and Learn from Event. *Safety Science 49*, 5-64.

Lundberg, J., Rollenhagen, C., & Hollnagel, E. (2010). What you find is not always what you fix—How other aspects than causes of accidents decide recommendations for remedial actions. *Accident Analysis and Prevention, 42*(6), 2132–2139.

Mallon, G. P. (2019). From the editor: The perils of research misuse – and the importance of IRBs. *Child Welfare, 97*(1), v-viii.

Meyers, D., Nyce, J., & Dekker, S. (2014). Setting culture apart: Distinguishing culture from behavior and social structure in safety and injury research. *Accident Analysis and Prevention, 68*(Jul), 25-29.

Munro, E. (2005). Improving practice: Child protection as a systems problem. *Children and Youth Services Review, 27*(4), 375-391.

Hengelbrok, N., Modell, S., Cheetham, T., & Nyce, J. (2019). A Systems Approach to Child Death Review. *Child Welfare, 97*(4), 45-63.

Persson, P. (2000) *Bringing Power and Knowledge Together: Information Systems Design for Autonomy and Control in Command Work* (Dissertation No. 639). Doctoral Dissertation, Linköpings University.

Scriven, M. (1967). The Methodology of Evaluation. (In Tyler, R. Gagné, & M. Scriven, Eds.), *Perspectives of Curriculum Evaluation AERA Monograph Series on Curriculum Evaluation, No. 1*, pp. 39-83.

Taylor, B., & Whittaker, A. (2018). Professional judgement and decision-making in social work. *Journal of Social Work Practice, 32*(2), 105-109.

Wright, S. (1998). The politicization of' culture. *Anthropology Today, 14*(1), 7-15.

Yamatani, H., Engel, R., & Spejeldnes, S. (2009). Child welfare worker caseload: What's just right? *Social Work, 54*(4), 361–368.