Adams-Judge Syndrome (AJS): Its Causes, Symptoms, Diagnosis, and Proposed Treatment.

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“There is nothing more important than understanding how reality works and how to deal with it. The state of mind you bring to this process makes all the difference.”

Ray Dalio introducing his LinkedIn post on December 8, 2019.

The mosaic panel "Blacksmiths of Modernity" by Galina Zubchenko and Grygoryi Pryshedko, 1974.

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Abstract

The article starts with the symptoms of an organizational condition, which is endemic to large companies and organizations. Named in honor of Scott Adams and Mike Judge, Adams-Judge Syndrome **(AJS)** is caused by a lack of attention to building and maintaining organizational problem-solving and decision-making network **(PSDMN)**, which performs the role of a nervous system. Next, the article shows how to diagnose the resulting state, where the pain of inability to achieve organizational goals is managed by a refusal to deal with reality at all levels of organizational hierarchy. It mirrors the plight of an individual facing the despair and cognitive dissonance associated with losing the ability to conduct a meaningful life. The individual's condition is amplified by the state of the organization, and vice versa. Lastly, in order to suggest a possible cure, the article will go into the dynamics leading up to the ailment and the processes triggered by it. The treatment involves three interrelated components. First, creating a temporary scaffolding that allows individuals to incrementally rebuild their confidence in their ability to achieve meaningful organizational goals. Second, putting in place a foundation for designing well-working problem-solving processes. And third, building a behavioral analytics based system for monitoring the health of PSDMN. This three-pronged approach is meant to bring about a genuine recovery instead of providing palliative care.

Introduction

Three years ago I wrote "Your High-Tech Startup Is a Success! Can This Be Sustained?" (Khaimovich, 2016) about the ubiquitous process that turns vigorous and quickly growing start-ups into unwieldly and wasteful "mature" companies, if insufficient attention is paid to building and maintaining healthy problem-solving and decision-making networks (**PSDMN**). This progression can be reversed relatively easily before the so-called no-return point (**NRP**) is reached. The NRP was explained in the above article: at this point, an initial lack of awareness of problems devolves into a lack of desire and even resistance to being aware of the situation, which is perceived as hopeless.

Since the article was published, I had a chance to participate in a determined struggle in a high tech unit of a very large and financially still successful company—let's call it BigCo—that was fighting to stay as productive and inspiring as it had been about 10 years ago, when it was gaining prominence in its initial market and starting to expand into new ones. Alas, by the time I became involved, the unit, and likely most of other units of the company, was clearly in the post-NRP state, giving rise to the corresponding organizational culture of protecting the self-delusion of excellence at any cost. The internal and external delusion was possible to maintain exactly because of the considerable financial reserves and the venerated status of the company.

The unit failed to increase customer satisfaction with its product during the 1-year probation period given for this purpose. At that point a bold move was attempted under the direct supervision from VP level: all new development was stopped until stability, usability, and performance of the unit's product was increased as reflected in customers' feedback. It appeared to be a rare opportunity for returning back from the post-NRP state, and I offered my help with designing organization, which is capable of building high quality product. I had no formal position of authority, and my ideas were not getting traction: an outcome that could be expected, as I explain below. I abandoned my efforts after about eight months, during which time I worked with six lower levels of BigCo's eight or so levels of organizational hierarchy, a variety of cross-functional programs designed to bring out engineering and operational excellence and improve data-based decision making, as well as HR departments supporting organizational design and change initiatives. My wide exposure to the struggle allowed me to improve my understanding of the operating forces and to expand my approach for preventing the decline of organizational decision-making capacity in the way that it can be used for reversing such decline. **Now I believe that this is a difficult and expensive, but possible task.**

A large number of companies would benefit from being able to return from the post-NRP state. As indicated by the popularity of Scott Adams' *Dilbert* and Mike Judge's *Office Space*, the comically poor decision making is very common. Frankly, I am not aware of a single company with more than a thousand employees that would not succumb to the post-NRP syndrome or, to honor the artists, who have presented such a comprehensive and precise portrayal of its symptoms, the Adams-Judge Syndrome (**AJS**). I am very tempted to include a third person into the syndrome's name. A recent book *Bullshit Jobs* by David Graeber (Graeber, 2018) provides an insightful portrayal of bloated up organizations, where many, if not most, of the workers are performing duties that create little value. Although the book's title lacks subtlety, it keenly outlines many of the social forces, which are working together with the AJS on creating and sustaining a grossly inefficient market economy.

Dee Hock, who detected the spreading AJS already 50 or so years ago, when he founded Visa International and tried to implement his management ideas, recently summarized the extent of the problem very well in his essay The Global Epidemic of Institutional Failure (Hock, 2017), where he wrote: "Today it should be apparent to everyone that we are in the midst of a global epidemic of institutional failure. Not just failure in the sense of collapse, but the more common and pernicious form--organizations unable to achieve the purpose for which they were created, yet continuing to exist as they devour resources, demean the human spirit, and destroy the environment."

Of course, some of the situations depicted by Adams, Judge, Graeber, Hock, as well as many other astute observers are shaped by personalities of the participants: their insecurity, educational gaps, lack of integrity, etc. But quite often the fact of placing wrong people into positions of responsibility as well as the fact of making many other poor decisions cannot be traced to certain individuals and is caused by unhealthy PSDMNs. Actually, the healthier the networks are the better they can operate even with low levels of psychological safety, education, and integrity.

These networks are serving a role of an organizations' nervous system. Similar to a nervous system, they are not easily observable, and their functioning is less understood than that of more tangible organizational systems like production, finances, legal, human resources, etc., though decision-making networks permeate and connect these systems as well. Thus, the task of maintaining the health of these networks is often overlooked. The fact that, when companies grow large, they lose their problem-solving and decision-making faculties is considered to be inevitable. Therefore, there is little motivation to understand how it happens. Without understanding of processes that affect PSDMN and that are, in turn, affected by these networks, it is virtually impossible to monitor and maintain their health.

Another medical metaphor is useful for understanding the difference between the tasks of preventing and reversing the AJS. Prevention requires taking vitamins and supplements, which is easy and inexpensive to do, but necessitates an ability to look ahead. The reversal is more like a chemotherapy. The need for it is usually quite obvious. Though there is always a choice of palliative care relying on pain management, which becomes the only option, when the illness is not well understood. Yet with sufficient knowledge and resources, a genuine recovery can be achieved, and the organization can be brought back to a productive state that is free of pointless pain.

As you will see below, the medical analogy, though used in this article in a facetious manner, is quite helpful when explaining the Adams-Judge Syndrome. Therefore, I am going to use this traditional format for presenting its symptoms, analyzing its causes, describing how to diagnose it, and proposing some treatment ideas. The symptoms are numerous and will look quite familiar for most of those, who have worked in large corporations, though the extent of purposefully engaging in duplicitous activities may be somewhat unexpected. To save time, you may want to go directly to analysis of causes, diagnosing, and proposed treatments.

Let me make a disclaimer here: frankly, I am not aware of any lasting improvements achieved when turning the post-NRP organizations around. My strong belief is that this article will move us toward successfully accomplishing this kind of transformation. In any case, it should help those working in these organizations to gain understanding of what is happening and to decide whether they want (1) to leave, or (2) to adopt the appropriate survival tactics allowing them to keep a job in an ailing company, or (3) to try restoring the health of their organizations. Also, I look forward to receiving answers to quite a few questions that are scattered throughout the article.

Symptoms

The essential feature of the Adams-Judge Syndrome (**AJS**) is that all levels of management as well as rank-and-file have lost hope that organizational objectives can be achieved. The fact of losing heart, in

turn, is carefully obfuscated. In other words, to avoid cognitive and moral dissonance as well as the danger of being sidelined or even terminated, employees at all levels of organizational hierarchy stop trying and even start resisting the awareness of their organization's and their own inability to do what makes sense from the vantage point of creating value and serving customers' needs. A particular kind of filtering, which is meant to protect everybody involved from the pain of clearly seeing reality, is created by altering decision-making at all of its three stages in the way that:

1. Valid and relevant knowledge is not generated;
2. Reliable dissemination of knowledge is obstructed;
3. Utilization of knowledge is impeded and misplaced.

My engagement with BigCo provided a wide range of symptomatic examples. Some of them were caused by problems in decision-making, when others were created—consciously or not—in order to keep decision-making processes biased, opaque, or irrelevant. For demonstration purposes I would like to mention only a few of them in each of the three above categories, starting from six examples of problems with generation of valid and relevant knowledge.

Symptoms of broken knowledge generation

Introducing the so-called In-app Review functionality was probably the most evident example of manipulating the generation of metrics in order to avoid facing the fact of not being able to improve users' satisfaction. The focus of the efforts switched from engaging in value-added activities to providing desired metrics.

After trying for a year or so to improve the product and consequently to raise the scores submitted by users via the product reviews, one of the unit's groups was given a task to "improve" how reviews were gathered. New functionality for generating requests for users' evaluations was added to the product. It was made intelligent in the sense that users would be asked for reviews only at the time, when most probably they were reasonably satisfied with the product. For example, a capability was added to turn off the requesting after a seriously flawed release would make its way through testing and end up installed on a large number of users' devices. Or requests were presented to users only after they were using the product long enough to indicate that they were sufficiently engaged.

The new functionality was tested in a pilot limited to UK users with "excellent results": the ratings submitted by users in this country shot up and quickly surpassed those in all other countries. The leader of the group, which had built In-app Reviews, sent an email celebrating the success to the whole unit. With a few exceptions, the managers and senior engineers on all levels chimed in with congratulations on a job well done. Obviously, it created an atmosphere, in which nobody felt comfortable pointing out that the improved ratings had nothing to do with usability, stability, or performance of the product. Hence the In-app Review functionality was rolled out worldwide.

Second, the problems with generation of valid knowledge can be clearly seen in the way a carefully designed and well-funded Correction of Errors (COE) process has been derailed. The process was supposed to institute the mechanism for fixing significant mistakes as well as for learning from them. It is a company-wide initiative with its own dedicated staff supported by working groups in every

organizational unit. The detailed design of the COE process is impressive. The documentation is extensive, well organized, and readily available. All employees receive strong recommendation to take COE classes, which are easily accessible and regularly scheduled. The results of COE investigations are archived and searchable. Most importantly, at the heart of COE process there is *5 Why* exercise, which is meant to ensure that corrections are addressing root causes.

Yet a careful inspection of half a dozen of COE reports was sufficient to show that the process fails exactly because getting to root causes is cautiously avoided. Three explanations were offered: (1) we cannot change management, and that's why we are looking only for technical solutions; (2) we are moving so fast that by the time we have a chance to do *5 Whys*—often it takes a couple of months—everything had changed and nobody really remembers what happened; and (3) somebody else hasn't provided the necessary information. Yet carefully listening to the respondents and asking more "why" questions made it very clear that all the above explanations were just excuses for… the lack of desire to find root causes.

Third, every morning, right after BigCo's employees login into the company's network, they are receiving one or a couple of questions that are meant to help with monitoring employees' morale and satisfaction, gauge progress of current organizational initiatives, and solicit ideas for designing the new ones. The program also has its dedicated staff, is collecting feedback about its users' satisfaction, has a form for submitting feedback on the offered questions, and periodically is emailing all its subjects with examples how management is successfully using the findings for improving their organizational functioning.

Yet, as somebody with experience in social research methods, I was bothered by vague formulations and frequent bias of the questions, which seemed to be written to solicit the desired responses. Using the feedback form, over about one-year period I have submitted more than 30 tickets with improvement suggestions, but never received a reply with much more than "thank you, we will notify the proper person." Not seeing any progress, I wrote directly to the program's researchers and leadership, but received no replies. Eventually, after having a chance to mention the lack of response to a VP, in whose organization the program is, one of the researchers replied to my feedback and told me how excited he was about my interest in designing better questions. But after 2 weeks or so our email conversation withered away with no observable outcome. The main problem, which was mentioned again and again, was lack of time and resources to do a better job. Yet my offer to provide some assistance on volunteer basis went unheeded.

Fourth, it turned out that BigCo had several organizational change experts. One of them was working with our division for a decade or even longer. Many times, when presented with my ideas about improving PSDMNs, managers and HR staff would mention his name. The ironic and highly indicative fact is that, when asked about helping to meet the organizational change guru, people would tell, that he worked for another group, though the organizational chart would often indicate the opposite. Attempts to contact the guru directly via the corporate email were resulting in radio silence. Only after cc'ing his boss, one of my questions was answered skillfully demonstrating the guru's knowledge of the

subject, but avoiding any specifics. The moment the supervisor was removed from the CC line, the responses to my emails stopped coming.

Fifth, BigCo prides itself on being a data-driven company. Expansive metrics are gathered, and gigabytes of data are logged daily. Some of them are quite useful for improving quality of its products and services. Also, the foundational principles of the company warn against the use of proxies, which can lead to losing the focus on customer satisfaction. Yet in reality many metrics are created with a very different goal: to ensure easy reporting of hitting targets and maintaining the illusion of precision and being in control. For example, a number of existing test cases are reported without ever evaluating if they are up-to-date and adequately specific. Or a percentage of passing automated cases is monitored, but the crucial information about the portion of existing functionality, which is being checked, is obfuscated by using test case priorities, which are adjusted based on the needs of making reporting look impressive.

The disingenuous nature of the so-called data-driven decision making is also revealed in the widespread game, where superiors are demanding to achieve precise numeric goals without checking how they were measured and what actually was done to meet them, and the subordinates are reporting the expected metrics without providing details allowing to understand what was actually done and how it was measured. Any attempts of proper understanding are rebuked by both sides as micromanagement.

Probably the most commonly used metrics are derived from meeting ETA (estimated time of arrival aka deadline or completion date) and date-for-date (date to get a completion date). The game is played by holding those, who have committed to an ETA, strictly responsible, but showing no interest in what actually needs to be done for meeting the deadlines and how they were arrived at. Often, all what is reported is “it’s done.” If ETA is not met, the new one is demanded without trying to understand why the previous one was missed.

Lastly, using bogus AI and Data Science can serve as an example of ailing processes for generating data used for making technical decisions. These disciplines can be very helpful for making better choices, but in the case of AJS they often become the dysfunctional means for avoiding personal responsibility: those, who are in charge, now can just “follow” the findings derived from the two sources draped in the cloak of credibility bestowed by association with science and technology. The first kind of results is produced by Data Scientists, who know very well what is expected by their superiors, and the second one is generated by AI models, which are carefully trained to give desired answers. Genuine knowledge-producing experimentation is discouraged and replaced by formality of A/B testing. Statistics-based AI models conveniently provide recommendations without illuminating any causal mechanisms comprehensible for a human mind.

Symptoms of broken dissemination of knowledge

The above examples show how an organization suffering from AJS is avoiding generation of valid and relevant knowledge. Yet even if it was created, it would be difficult for the knowledge to travel to its intended destination. Frankly, sometimes it’s not easy to say where generation ends, and where

dissemination begins. The following three examples are symptomatic of obstructions to reliable propagation of knowledge.

BigCo has several programs for helping information flow, but under the conditions of AJS they, in a large degree, lost their effectiveness. Still they consume resources and nominally exist, making it difficult for new programs to be created or informal ways to be utilized.

For example, there is a program to make developers' voices heard. It conducts an annual survey, which is somewhat useful, especially in the units, where the survey's results are used for digging deeper to discover the responsible processes and implementing necessary solutions. I learned about the program after listening to its manager's widely broadcast presentation about the improvements in how engineers were to be promoted. The new process seemed to be sensibly designed and carefully prepared for implementation. I was impressed and thought that with the program's help something could be done about a troubling fact of one of most experienced Software Quality Engineers in our unit being suddenly fired and leaving without any explanation.

The program's manager did direct me to the HR group, which was working on the processes for terminating employees. But my suggestion, that one of the steps in the process—a qualified employee's transfer into another group—was unnecessary difficult and causing confrontation between an employee and his or her superior, again ended up with usual "thank you, we will notify the proper person." About two months later, when another engineer in our group was leaving under similar circumstances, I learned that the process was amended indeed: now it became even more difficult for an employee to become eligible for transferring, but it "protected" his or her manager while proceeding with the termination by "simplifying and streamlining" the process and insisting on "razor sharp focus on results" instead of considering the work environment as well. Forwarding this information to the manager of the voice of developers' program received no response.

There was another indicator that the program was not working as a mechanism for addressing the developers' complaints and suggestions. In the case of AJS, many of them had systemic nature. A couple of years ago a person with a background in process improvement in the Navy was hired to assist in addressing such complex problems. Yet at the time of my engagement he was not working at BigCo anymore. Nobody currently involved with the program was willing to tell me about the work he has done or to put me in touch with him.

The second example of problems with dissemination of knowledge involves dysfunctional hierarchical structure. In the case of healthy PSDMN, it makes sense to enforce submission of problems first to the lowest level, which may be able to solve them. Yet under the conditions of AJS, insisting on going through the line of command serves a completely different purpose: it allows mangers on a higher organizational level to avoid looking into a problem while maintaining an appearance of taking a proper action of sending it for investigation to their subordinates. That's why any attempts to introduce the bottom-up change in post-NRP organizations are doomed.

Third, changing definitions and introducing new names serves as a handy tool for distorting the flow of information. For example, an executive became concerned that customer release candidates were of

low quality and often needed to be scraped wasting considerable time, which went into preparing the customer versions and extensively testing them. One of the BigCo units was required to make sure that at most two release candidates were produced before shipping to users. Instead of taking a difficult road of improving quality, the problem was solved by calling some of the candidates "drops." So instead of, let's say, 10 release candidates, only two release candidates with 5 drops in each were made.

Symptoms of broken knowledge utilization

Even if valid and reliable knowledge had been produced and it has managed to make its way to the place where it could be employed, the decision-making process under AJS is often derailed by impeding the knowledge utilization. The following three examples provide a good illustration of how it happens.

First, BigCo has another carefully crafted program to assist with embracing its employees' creativity and knowledge. It is meant to gather big ideas—with a potential ROI in excess of $1B—and to provide seed funding for putting the best of them to work. There is an internal website, where individuals and groups can post their ideas following a specific format by a certain annual deadline. The identity of submitters is concealed to avoid possible bias during the second stage, when volunteer judges are evaluating all ideas on their bigness, delight, and originality. Based on these ratings, the program's organizers are choosing about 5% - 25% of all submitted ideas for the final review by a group of upper-level managers, which are being prepared as successors for the executive team. A dozen or so of ideas are promoted to receive seed funding. It all looks good, but, again, only on paper. How did I come to this conclusion?

Because a proposal about preserving health of BigCo's PSDMN was submitted, and the submitter went an extra mile trying to put it to work. This way he learned quite a lot about the program and its organizational context. First, despite of the idea being highly rated on its bigness, delight, and originality, and despite the active discussion it triggered on the submission website, it was not promoted. The submitter wanted to understand why and to see, if it was some kind of mistake. It took some persistence to get a reply from one of the program's organizers, who seemed genuinely excited by the potential of the submission, took time to explain how the selection process was working, and suggested to find a group, which would be willing to put his idea to work. If he did, there could be funding available for promoting it.

So, the submitter got busy, and after about two months and contacting maybe a dozen of groups, which seemed adventurous enough to embark on the journey, he had one team, which was willing to work on its PSDMN. But submitting this info to the program's organizers again resulted in radio silence. In any case, reaching far and wide throughout BigCo was, indeed, of great value for seeing the extent and kind of defenses to facing the organization-wide damage caused by AJS.

Second, another example of resistance applying knowledge comes from the unit, which was under a constant pressure to increase its low software quality. The unit had an extensive suite of scripted test cases, which was administered every 2 weeks or so at the end of customer release cycles. Every time it took hundreds, or even thousands, of man-hours to complete testing. The pass/fail results were reported in nicely formatted online forms, which were easy to read. There was just one problem: anybody, who knew the product well and would actually read the test cases, could see that absolute

majority of them were missing crucial details necessary for verification and often had nothing to do with the current product's functionality, which had changed considerably since the test cases were authored. Furthermore, the functionality was expanded, but far from all necessary test cases have been added. Therefore, most of the release testing was done—as people were joking—"in spirit only." The testers, many of whom were working with the product since its inception, were well familiar and highly experienced with it. What they were doing was Exploratory Testing (Fowler, 2019), and they were doing it in a very effective manner. Yet it had very little to do with the scripted testing, which was reported. For this reason, nobody really monitored what functionality was covered and if it was sufficient for releasing the product to customers.

The unit's management was provided with a suggestion of using Rapid Software Testing **(RST)** (Bach, 2019), which supplements Exploratory Testing with reporting tools that can estimate the risk of releasing the product to customers. It also would provide input for evaluating test coverage and for subsequent decisions about improving it. Yet, the RST reporting would be: (1) based on subjective experience of experts, and (2) appropriately qualitative. Also, obviously, it would increase awareness of the problems with current state of testing. This, combined with the false appearance of objectivity and quantitative precision of scripted testing, made the management reject the suggestion, because "This will never fly here." In a very symptomatic for AJS way, the new approach was considered as not being up to "high standards that we are practicing here."

The third example shows how post-NRP organizations not only are inclined to avoid using managerial and technological approaches, which would benefit them, but are inclined to fall prey to current fads.

As it was mentioned at the beginning of this article, at some point all new development in the unit was stopped. This provided a much-needed opportunity to focus exclusively on the goal of increasing the existing product's stability, usability, and performance **(SUP)**. The Quality Assurance group was given a chance to plan its own activities for achieving this goal. Unfortunately, no attention was given to helping the organization to recover from AJS with its typical avoidance of awareness. Thus, the unit's management used the time they were given to do what always worked in the past: to figure out what makes their superiors happy and report rapid quantifiable progress toward these goals. It turned out that scripting more test cases and automating them would do the trick.

The fact, that the decision was made to write more test cases while ignoring the effort needed to make them sufficiently detailed and maintainable, is not surprising and not particularly interesting. The decision to go full speed ahead with automation, though it is not directly addressing the goals of increasing SUP, is more telling. Of course, automated testing can have many benefits, but for an organization suffering from AJS it has a special attraction: automated processes ostensibly reduce the need for humans to make decisions. The automated system doesn't decide to follow or not the command to start or stop. It "just gets the task done," without asking any questions. Also, if we have automated "end-to-end" test cases for checking SUP on all devices and under all possible conditions, we don't need to bother with intelligently architecting, building, testing, and deploying our product: we just hit the button, and the automation tells us, if we should release the product to customers or not. In other words, the need for applying knowledge in order to make and implement decisions seems to be

drastically reduced throughout the software development life cycle. Therefore, the uncritical push "to automate everything," which is so prominent among high tech companies, often is symptomatic of the AJS epidemic.

Similarly, adopting Agile is of special attraction for companies suffering from AJS, because it is seemingly reducing the need for a planning component of decision making. Companies that have found themselves incapable of planning are quick to embrace Agile. They hope that biweekly planning sessions eliminate the need for understanding both temporal and organizational context that is necessary for longer-range insights. It is quite easy to discern these companies, because instead of assisting healthy decision making by achieving the right balance between long-term and short-term focus, an attempt is made to disregard the former. Usually these companies are using an excuse of moving too fast for finding time for retrospectives. When retrospectives do take place, they are never long enough to get to root causes. Information prepared for stand-ups also carefully avoids addressing consequential persistent issues. Two-week long sprints taken out of context of long-range planning are destined to focus on wrong priorities and put pressure to report unfinished projects as completed. And, of course, the dysfunctional agile mindset gives permission to avoid documenting who makes what decisions and how.

Symptoms of broken talent management

Decision-making problems are occurring in all parts of a growing company that don't pay sufficient attention to its PSDMNs. Yet inability to make good decisions regarding acquisition, promotion, and termination of employees directly affects the selection of decision makers and how susceptible they are to AJS. Furthermore, different groups and departments are succumbing to AJS at different rate, and this presents an additional challenge for HR, because fundamentally different talent management techniques and approaches are needed in the units that are affected by AJS or are still healthy.

Let me demonstrate it on the case of terminating employees. In a well-performing unit, which is able to ship high quality product or service on time, it makes sense to put low-performing employees on probation and present them with a Performance Improvement Plan **(PIP)**, which requires certain meaningful tasks completed well and within reasonable time. But in the case of a unit affected by AJS, how can it be expected that individuals would fulfill these requirements, when their whole organization cannot? The whole idea of preparing a PIP requiring employees to meet timeliness and quality goals becomes a sham purely reflecting likes and dislikes of superiors.

The sentiments toward subordinates are reflecting mostly their loyalty to their superiors and their readiness and ability to perform assigned tasks. This is true in any organization, but under AJS the tasks are serving the purpose of obfuscating and creating false appearances. Therefore, loyalty is separated from the espoused organization's mission, which is usually focused on customers' needs. Anybody, who will try to get to the sources of low organizational performance, or even will just reveal lack of certainty that the activities of their unit produce any value from the end customers' viewpoint, will be awakening intense insecurity in not just their superiors, but often among their peers, who are usually working really hard fighting fires and hiding smoke caused by broken decision-making and problem-solving processes. The employees, who are "making waves" while trying to do a good job, fall an easy prey to wishful thinking, frustration, and scapegoating. Yet the stated reasons for their termination are disloyalty,

double-guessing, not being a team player, and, of course, incompetence or lack of ability. Firing these people with a "not eligible to rehire" flag in their HR profile makes it sure that AJS will continue destroying the organization now and in the future.

At the opposite end of human capital management there is a promotion process, which may be carefully designed. But under AJS, the design will be using (1) data and metrics meant to disguise the low performance of the whole organization; and (2) opinions of coworkers, who are feeling insecure about their situation. This results in a certain kind of a person rising to the increasingly higher levels of responsibility and in further strengthening the *status quo*.

To summarize, inability (1) to make the necessary distinctions between the healthy units and those that are affected by AJS and (2) to come up with appropriate talent management policies will greatly accelerate the spread of the disorder throughout the company.

Symptoms reflected in organizational culture

Organizational culture consists of stable patterns of written and unwritten norms, rules, and attitudes. All of them are influencing behavior of employees and, therefore, are exhibited through it. The shaping happens through the processes going on inside the PSDMN. Ben Horowitz (Horowitz, 2019), goes so far as to say, "Culture is how a company makes decisions, when nobody is looking." Therefore, AJS, which affects decision making, can be clearly perceived in informal norms and the resulting emotional atmosphere in a company.

How does it feel to work in a company suffering from AJS? Speaking about "Day Two," which is the outcome of a company reaching the post-NRP stage, Jeff Bezos provided a pretty graphic description in *2016 Amazon Letter to Shareholders*: "Day Two is stasis. Followed by irrelevance. Followed by excruciating, painful decline. Followed by death." (Bezos, 2016 Amazon Letter to Shareholders, 2017) Yet, I would add that the stasis phase has two stages: violent and peaceful.

The earlier and violent stage corresponds to the onset of AJS, when executives are still trying to steer the company by sending down the policies meant to improve financial indicators, customer satisfaction, and other KPIs. They don't realize that at the lower levels the focus has changed from building high quality product and providing the company's customers with valuable service to: (1) hiding from themselves that they are not capable of implementing the policies, and (2) keeping their bosses happy by helping them to stay as unaware as possible of failure and its reasons. Because of not being able to tell healthy PSDMN from the infirm one, the same management techniques and approaches are applied in both kinds of networks, guaranteeing failure. This makes upper management feeling helpless and angry, which, in turn, leads to tremors of layoffs, terminations, emotional breakdowns, and insistence on sacrificing quality of life for the sake of meeting business goals.

The later peaceful stage happens when the executives finally give up. At this point they can be seen during an All-Hands meeting pointing back to the audience and announcing something to the effect of "it's up to you, guys." Now, even the very top most of the time is content to live in their make-belief world, which is carefully protected by many levels of their "loyal" subordinates.

The violent stage is more prolonged and stormier in the companies relying on principled management. Even thoughtfully elaborated and carefully balanced sets of management principles are lacking the depth of understanding of organizational decision making, which is necessary for building and monitoring healthy PSDMNs. For example, the 14 principles, which are influenced by *Good to Great* written by Jim Collins (Collins, 2001) and are meant for guiding management of Amazon, are carefully balanced against each other and constitute a fine management philosophy. But it was wrecked during implementation. Bridgewater's system of principles (Dalio, 2017) is even more sophisticated, but again it does not seem to be implemented. Enthralled by the grandeur of their own intellectual constructs, the leaders of such companies continue their controlling efforts long after the nervous systems of their organizations has become deeply sick, precluding the signals sent by the brain from reaching the rest of the body. Seeing their efforts failing again and again makes the leaders feel helpless, and this, in turn, often breeds anger or leads to unethical manipulation using disinformation, a carrot of strong incentives, and a stick of AI-supported measurements of productivity, which are counter-manipulated and taken advantage by the highly intelligent workforce (Soper, 2020). In any case, the focus on customers' needs and on meaningful metrics is lost in this battle.

Corporate morale is clearly taking a hit under ASJ conditions, which often leads to attempts of directly manipulating culture and morale via glamour—expensive furniture and decorations, outlandish mandatory fun, extravagant company parties and offsites, carefully scripted all-hands, artificial positivity in photos and postings on social media, as well as by basking in the exercise of corporate power by ostensibly helping and protecting less fortunate others through fundraisers and sponsorship of popular causes. Yet the lack of "heart, intuition, curiosity, play, guts, taste" (Bezos, 2017) in culture manipulation endeavors is only indicative of the AJS' extent and is often achieving the opposite—demoralizing—effect.

To conclude this section, I would like to mention an extensive and insightful list of AJS symptoms in software development environment from the book *Do You Want To Be A (Better) Manager?* by late Gerald Weinberg (Weinberg, 2016). It emphasizes that knowledge creation, dissemination, and utilization processes are severely crippled.

Causes

The Adams-Judge Syndrome **(AJS)** develops in an organization, which repeatedly has not been able to achieve its goals. Given a choice between trying again, which would require taking a close look at internal organizational obstacles and hindrances, and avoiding the need to deal with reality, all levels of management as well as rank-and-file chose the latter in order to escape possible pain, frustration, and insecurity of another failure. The fact of losing heart is carefully hidden as well. Onset of AJS corresponds with passing of no return point **(NRP)**, which was discussed earlier and was called this way, because it creates the situation, when it is very difficult for the affected organization to make a good decision to improve any of its business processes including its decision-making process.

There can be many reasons for not attaining organizational objectives, but AJS is caused by a specific case: development of the nervous system of the quickly growing company—its problem-solving and decision-making network **(PSDMN)—**is lagging behind, because its problems are not easily visible and do

not receive proper attention. Yet this specific case—inadequate PSDMN—is often responsible for numerous ensuing problems manifesting themselves in company's strategy, product design, marketing, sales, HR activities, etc.: each and every of these areas are affected by problems with PSDMNs, working within and between all corporate functional departments.

AJS usually spreads from the bottom—where goals are simpler and better defined, allowing painful clarity of seeing when they are missed, and where employees are more exposed to burnout from constant pressure of fighting fires and working long hours—to the top, where executives are protected from seeing reality by many layers of "loyal" employees trying to keep their bosses happy. This kind of loyalty, which often conflicts with professional loyalty—adherence to high professional standards—and with loyalty to organizational vision and mission, is also increasing with deepening of AJS. It becomes exclusively based on the place of individuals in a corporate hierarchy and is captured in cultural mores like: "if you are my boss, I am a fool; if I am your boss, you are a fool." It goes without saying, that a "good subordinate" needs a fair share of ability combined with a large dose of effort to play a fool gracefully and intelligently. This is another reason why recovery from AJS is so difficult and has to start from the very top.

Yet the role of middle management cannot be underestimated, because it takes on a crucial task of keeping peace by not allowing poor decisions from above, which are impossible to implement within the required time with acceptable quality, to reach the place where rubber hits the road. It also performs an important role of not allowing information showing the lack of progress to reach the upper levels of management. Therefore, the vicious cycle is complete: the executive levels are not getting valid information for making good decisions, thus the middle levels have to "protect" their subordinates from their superiors' orders, thus those, who are responsible of executing the orders, have no idea what and why the executive management has planned, thus they cannot hit those goals, and therefore the middle management has to "massage" the performance reports flying upstream in order to "protect" those below from the dissatisfaction of those, who are above. It results in the situation, when on paper there may be great feedback and corrective processes, but they do not actually work.

Eventually the executives give up their attempts to steer the company and join the rest of employees deriving as many personal benefits as possible from the association with a dying corporate body. This brings concord and reprieve from pain for everybody. This also makes it unnecessary to have competent management and skilled labor as long as squandering inherited wealth and reputation or exploiting natural resources allow for the extremely inefficient corporate entity to keep going.

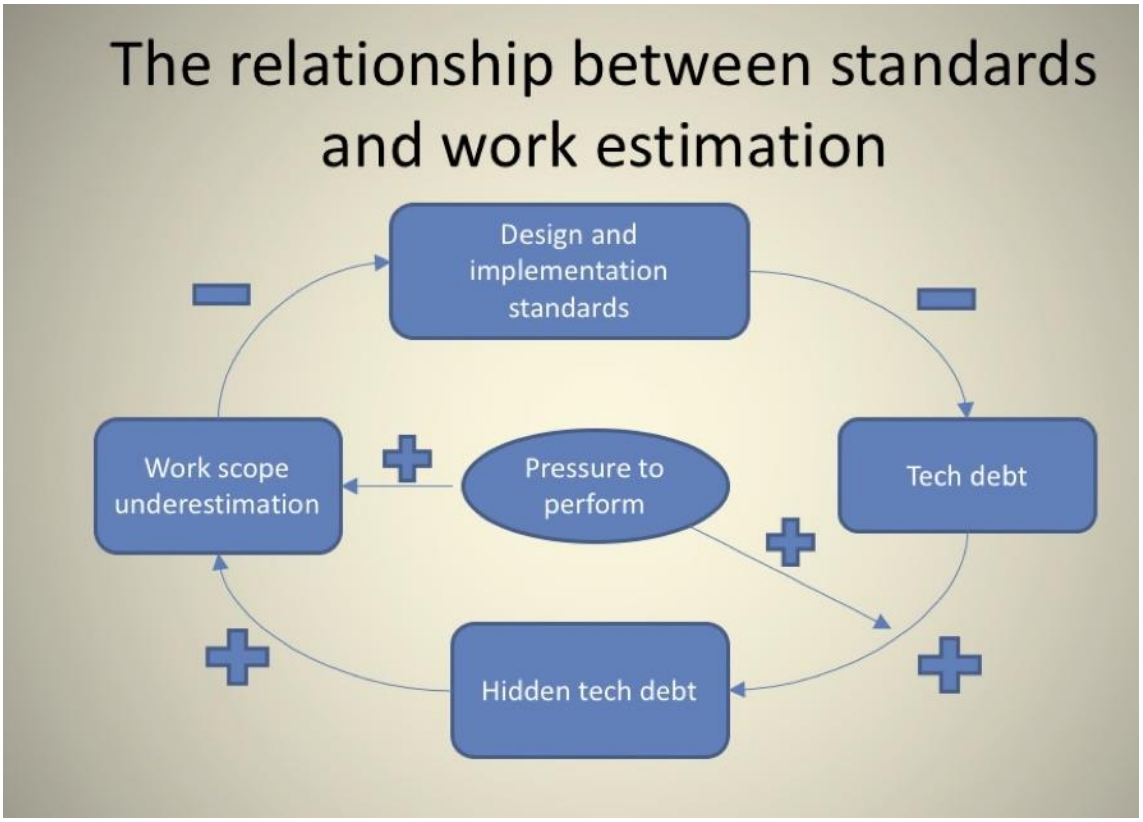
Being financially stable and well-known becomes a disadvantage in the sense that it helps to postpone dealing with reality and provides extra time for the treaty between incompetent management and unfit labor to solidify (Argyris, 1986), making the recovery from AJS less and less probable.

The actual course of decline will be different in every particular case and depends on (1) financial/market circumstances of the company at the time its PSDMN starts seriously malfunctioning, (2) persistence, integrity, intelligence, and experience of top management group, (3) loyalties of

employees (Hirschman, 1970), (4) complexity of PSDMN and of the tasks it is supporting. Anything else is left out?

One of the paths of organizational decline, which is quite common in high tech companies, is described in one of my posts (Khaimovich, Your High-Tech Startup is a Success! Can This Be Sustained?, 2016). It includes two processes, which seem to be common to many organizations. First, poor planning leads to poor quality of product/service. Under the conditions of AJS, it leads to even bigger problems with planning. Second, slow downward drift caused by excessive bias for action, when alleged problems are fixed before there is sufficient understanding of how to fix them well and whether it is necessary to fix them at all.

The below diagram illustrates the cycle connecting poor work estimation and low work standards.



In this diagram "+" signs denote a positive relationship of "the more, the more" kind, and "-" signs – a negative one of "the more, the less" kind. Let's start from a decline in the standards used for design and implementation, which will lead to increase of technical debt. This, in turn, leads to an increase in the technical debt, which is either unknown or concealed. The pressure to perform contributes to the rate at which technical debt is hidden. The more of technical debt goes unaccounted, the easier it is to underestimate the effort necessary for completing any project requiring integration with existing code. Underestimating the scope of work, in turn, leads to lowering the quality standards of design and implementation.

Because the product of positive and negative signs in the above cycle is positive, we have a self-reinforcing loop, which will intensify the decrease in standards initiated by underestimating the scope of necessary work. Yet, if the external effort will lead to increasing quality of design and implementation, the loop can start going in the opposite direction: raising the standards of design and implementation will improve scoping of work and, in turn, further raise work standards.

Apparently, there is a growing realization of this process taking place in some companies. For example, the 2017 Amazon Letter to Shareholders (Bezos, 2018) states: “Unrealistic beliefs on scope – often hidden and undiscussed – kill high standards.” Hopefully, a sustainable and substantial reversal of the downward cycle will follow.

The second of the two above mentioned processes involves the excessive bias for action, which encourages people to charge ahead with decisions, which have not been carefully thought through. Quite often bad decisions are made, then ad hoc corrections are introduced, which need another quick fix, and another one, etc. Also, a procedure for reversing bad decisions is rarely designed. Even if the immediate goal is achieved, the environment becomes littered with workarounds and band aids.

Incomprehensible clutter is left behind after the multiple unsuccessful trials and reversal errors, which are usually performed in a hurry and while trying to hide the failure. One or several passages through the “two-way door” would not be very harmful, but when they are repeated thousands and millions of times, the environment is messed up organizationally, technically, and emotionally to the extent that any quick movement in it and logical comprehension of it become impossible. Many poorly made reversible decisions will bring an organization to the place, where both moving forward and moving back are difficult or impossible. In other words, many “two-way doors” add up to a really severe “one-way door.” Maybe even to “closed door.”

Excessive bias for action presently is much more common than excessive reliance on understanding and rationality. Yet the latter can be as damaging for health of the PSDMN as the former (Khaimovich, 1995), and it still was a quite common case until about 25 years ago. In general, proper functioning of PSDMN is very sensitive to the balance of activities aimed at getting things done and at increasing understanding of organizational context. After falling into one extreme, organizations often sway all the way toward another end of the continuum. Unfortunately, it only continues eroding their PSDMN and makes it more difficult to make the decisions helpful for finding the right balance.

Concluding this section, I need to mention that many of the processes responsible for the onset of AJS have loops and, in this sense, are cyclical. That’s why it’s often pointless and futile to try separating causes from outcomes, many of which were mentioned earlier in this article as symptoms. Also, the above list of causes is far from complete. Format of an article does not allow elaborating on many other known relevant processes. I am sure, that my current understanding also can be further extended, and this would increase the probability of successful practical prevention and treatment of the syndrome. Your contributions are very welcome.

Diagnosing

The symptoms and causes, which have been mentioned earlier, often are quite visible and can help with diagnosing AJS. Especially if they are interpreted within the framework of efficient creation, dissemination, and utilization of knowledge.

Frankly, in many cases there is no need for diagnosing at all: it's pretty certain that any company with more than about 1000 employees is suffering from AJS. I haven't seen a single exception from this rule. The realization of importance to start building a company's PSDMN as early as when it has just a couple of dozens of employees is setting in among forward-looking VC practitioners like Tomasz Tunguz (Tunguz, 2016) and Ali Rowghani (Rowghani, 2016). But the necessary knowledge and experience for carrying out the task is lacking.

Take any persistent problem or organizational pain point as stated by the participants, start earnestly look for causes, and the presence of "no desire for awareness" will be quite evident. Though earnestly facing reality may be quite difficult to achieve from within a company already affected by AJS. I remember a lengthy exchange of emails with a long-time employee, who obviously could not see how dysfunctional the organizational learning function was, in which he played an important role. Eventually he ended our conversation with "Probably I has been drinking the Kool-Aid for too long."

It may be necessary to retain an organizational excellence canary **(OEC)**. Similarly to its close relative—a miner's canary—OEC can detect problems with PSDMN before the environment becomes intellectually and emotionally toxic for those tolling deep in corporate mines. Please contact me, and I will help you to find one of those increasingly rare birds. Alternatively, you can try locating one yourself. Its distinguishing feature, which causes an OEC to be uncommonly sensitive to problems with PSDMN, is its natural inclination for continuously checking, if its environment makes sense as a system of dynamic processes. Dr. Deming would be a good example of this ability.

Much more work is needed for making diagnosis more credible. For that we need to come up with valid indicators of a healthy PSDMN and to learn how to reliably measure them. The good news is that these metrics can be used for monitoring the network's health and making the necessary adjustments. This will be very helpful anyway, when starting the treatment of AJS and monitoring the progress.

The indicators can be captured by 5 variables (Khaimovich, 1999). One describing quality of solutions generated in the network (QS), and four describing individual characteristics of all participants, who have a role in making and implementing decisions:

- understanding of solutions and other knowledge generated during the problem solving (SU);
- willingness to use solutions and other knowledge generated during the problem solving (SW);
- understanding of roles, goals, abilities, and problem-solving preferences of others (IU);
- willingness to work with others (IW).

Design of the above metrics and instruments for their collection will be unique for every company and will require considerable skills and experience in social research. Some of the necessary data may be

gleaned from organizational communication tools like Slack, corporate email, and from Correction of Errors **(COE)** programs.

Treatment

The onset of AJS corresponds with the organization's passage into the, so-called, post-NRP state. As was explained at the beginning of this article, NRP stands for "no return point." I came up with this term about 3 years ago. Until recently I did not believe that AJS is treatable. But after my last engagement I came to the encouraging conclusion that it is possible. Yet it takes long time, is very expensive, needs full commitment from the high enough executive level, which has to be AJS free, and requires advanced skills and knowledge in the area of organizational design.

My opinion changed while observing the BigCo's attempt to improve customer satisfaction in the business unit of about 250 people, most of whom were software developers and testers. Just the cost of stopping all new development and focusing on dealing with technical debt for about 8 months was in the ballpark of $30M. There also was a considerable risk that competitors would leave BigCo behind. Yet knowing that they also were bogged down by similar problems, made it reasonable to try. There were no formal reliable measurements used for gauging the progress of the effort, but what I saw didn't amount to anything close to what was intended in the area of customer satisfaction. Also, in my opinion, the health of PSDMN continued deteriorating. Yet the effort was very close to succeeding: the only missing necessary component was realization that AJS was at the root of the problem and needs to be dealt with.

The unit is still alive. The recent large changes in its leadership demonstrate that improvement efforts are continuing however misplaced they are. I believe that, if they start addressing the problems with the unit's PSDMN, AJS can be cured and the subsequent technical headway is possible.

Eight steps will be necessary.

First, to be prepared and get executive commitment for a protracted and expensive series of Deming's Plan-Do-Check-Act (PDCA) cycles (Deming, 1986), which are the essence of genuine agile approach. A person with sufficient credibility and power to support the effort, and who is AJS-free himself or herself, needs to be driving it by being directly involved into decision-making processes.

Second, a location within the organization has to be found, where the genuine desire to accomplish organizational goals is still alive. Most probably it won't be a department or business unit that is wildly successful according to any existing performance measures. Under AJS conditions, individuals and teams that are earnestly focused on quality and customer satisfaction are having a reputation of troublemakers, dissenters, or labeled as "lacking motivation."

Third, the top-down pressure to perform, which is pointless because of the middle management's battle-tested ability and skill to dissipate it, has to be kept away. Instead, the focus needs to be on creating conditions for emergence of internal motivation to do a good job: the satisfaction and pleasure intrinsic to doing the job well has to be a primary motivator. Because of unprecedented nature of the undertaking, the time frame should be set to "as long as it takes." On the other hand, it is important to

prevent the schedule drift caused by a general resistance to clarity and avoidance of responsibility characteristic for organizations affected by AJS. Each extension has to be clearly justified by the necessary tasks and carefully planned while watching for the “paralysis by analysis.”

This brings us to the step number four. Namely, though clear technical goals have to be set, the real focus should be on rekindling faith in being able to achieve them individually and as a team. As a rule, only small and easy projects have to be attempted at the beginning. Use of external motivators like monetary bonuses or organizational promotions for speeding up the emergence of internal motivation has to be done with utmost care by experienced organizational design practitioners, if at all. Everybody in management has to be ready that accomplishing anything, which adds value, will be more difficult and time consuming than could be expected.

The Critical Chain project management techniques (Goldratt, 1984) will be most suitable. Additional time and resources for performing tasks of learning about the organization and its PSDMN will have to be explicitly allocated. Deming’s PDCA cycles will have to be quite short and the associated COEs/retrospectives will have to be performed without delay and with help of experts in root-cause analysis, who are comfortable to discuss the undiscussable (Noonan, 2018).

Under rare circumstances of having highly qualified external consultants for whom professional excellence is much more important than being paid, it is possible to tackle somewhat larger and more urgent projects. The key is that these consultants have to be interested in working themselves out of the job, by passing their expertise and relentless focus on doing a good job to the internal team, with which they are working. They will not only have the deep professional knowledge, but also a knack for planning and driving the project. For example, in the case of a software development project, both architecting software and designing the project, which is capable to implement this architecture, will be needed (Löwy, 2020). Once again, the successful completion of the project has to serve the goal of making the team confident in their own ability and in their project’s leadership.

Five, only after the initial successes will start improving morale, a bit larger and more complex projects should be attempted. The tendency of middle management to impress their bosses rather than to do a good job will be still alive, and scaffolding will need to be built for counteracting it and keeping projects focused on value-added goals. One of the most important pieces of scaffolding is an operational process for monitoring PSDMN health. The process will enable Test Driven Organizational Design **(TDOD)** (Levchuk, Pattipati, & Kleinman, 2005) when building the PSDMN on the next step. Similarly to TDD of software, after an initial time investment, TDOD is increasing both speed and quality of organizational change.

Six, a healthy PSDMN needs to be designed and built. It can be done using an approach developed by Herbert Simon and described in his *Administrative Behavior* (Simon, 1947). It has 3 steps: (1) by observation of the actual decision-making process determine what important types of decisions are made, how data might be useful in making these decisions, and at what point in the decision-making process the data most usefully be injected; (2) a pattern of PSDMN is to be developed that would be effective in providing the right kind of data at the right place, and at the right time; (3) the

recommendations for organizational change are to be implemented by adjusting knowledge production, dissemination, and utilization pattern—the pattern of who-talks-to-whom-how-often-about-what—rather than by formal changes in organization chart.

Building a well-functioning PSDMN can be greatly assisted by using metrics designed while diagnosing AJS. The model relating them to the functioning of the PSDMN has to be built using causal dynamic approach. Methodologically a recent monograph *The Book of Why* by Judea Perl and Dana Mackenzie provides a good idea of the kind of predictive analytics, which are necessary (Pearl & Mackenzie, 2018).

The approach designed by Ed Schein in his *Humble Inquiry* can be very helpful for organically growing a healthy PSDMN by asking questions, which are important, in a humble way, and therefore building relationships "based on curiosity and interest in the other person" (Schein, 2013).

A healthy PSDMN is a dynamic system constantly adjusting to the changing tasks and conditions, under which the organization has to function. Yet this adjustment is accomplished in the way allowing effective uninterrupted production, dissemination, and application of knowledge. The theory of such—so-called chaordic--organization, which has a built-in control loops for finding just the right balance between chaos caused by excessive change and inertia of obsolete problem-solving processes, was developed by Dee Hock and applied at Visa and several other organizations (Hock, 2000) with more or less success.

Seven, only after a healthy PSDMN is built and tested, it's time to embark on a significant project with tangible benefits for customers. The participants' morale should be high enough at this point for them to be increasingly in charge of planning and executing the project. It is time to start taking scaffolds away: upper management's control should decrease, and organizational designers should transition from actively building new processes to monitoring them and serving as a source of expertise for the team, which is directly involved into technical aspects of the project and its day-to-day management. The focus will be switching from organizational improvements to technical goals, though the five metrics of PSDMN's health have to be continuously monitored to avoid slipping back into AJS.

Eight and finally, the lessons learned and people trained while treating AJS can be used for expanding the effort to new teams and organizational units. Each of them will have unique circumstances and challenges. Transferring experience and knowledge will require humility and effort. Still, with proper management, it is possible to start a flywheel, which will acquire more and more momentum and will cure AJS in the whole company and beyond.

Conclusion

This article presents an experience-based description of symptoms of Adams-Judge Syndrome **(AJS)**, the nascent understanding of its causes, and suggestions for diagnosis and treatment of this widespread organizational malady. Of course, AJS is not so well understood as most conditions, which can be found on Mayo Clinic website. Therefore, the medical format is used in a facetious manner. Still, given the far-reaching consequences of large companies' inability to make good decisions and the large-scale waste of human talent, I would say that it is reasonable to take a risk of putting the ideas presented in this article to work. They are ready to serve as a starting point for an earnest attempt to turn a company around or for a comprehensive and meaningful research program, or better else, a combination of both of them

performed in the tradition of action research, which can be traced to work of Kurt Lewin (Lewin, 2020). This article is meant to enable these developments.

The harm caused by AJS is not limited to corporations: it spills into the rest of our society. A quick look into the recent media reports of problems caused by poorly designed and hastily deployed technology is sufficient for proving the point. Yet there is even larger, but less obvious, detrimental impact caused by resocialization and personality changes, which happen to all of us, when we are trying to achieve success in modern workplace affected by AJS. Furthermore, our educational institutions are eager to prepare young people for this kind of success. Parents, after they return home from work, consciously or not are exercising major influence on formation of value system and character of their children, who will join the tomorrow's workforce. Therefore, the long-term effects of AJS can send the whole society into a downward spiral, when children of today become parents and employees of tomorrow. This is already happening. It is not surprising that there is a considerable and growing hostility to large corporations right in their embedding communities, despite of the obvious sizable wealth they often bring in. But this is an important and complex topic, which deserves a separate article for adequate exploration.

Works Cited

Argyris, C. (1986, September). *Skilled Incompetence.* Retrieved from HBR: https://hbr.org/1986/09/skilled-incompetence

Bach, J. (2019). *A Rapid Software Testing Framework.* Retrieved from https://www.satisfice.com/download/a-rapid-software-testing-framework

Bezos, J. (2017). *2016 Amazon Letter to Shareholders.* Retrieved from https://amzn.to/2O3jjqE

Bezos, J. (2018). *2017 Amazon Letter to Shareholders.* Retrieved from https://blog.aboutamazon.com/company-news/2017-letter-to-shareholders/

Collins, J. (2001). *Good to Great.* Retrieved from https://en.wikipedia.org/wiki/Good_to_Great

Dalio, R. (2017). *Principles.* Retrieved from https://www.principles.com/

Deming, W. E. (1986). *Out of the crisis.* Cambridge, MA: Massachusetts Institute of Technology, Center for Advanced Engineering Study. Retrieved from Wikipedia: https://en.wikipedia.org/wiki/PDCA

Fowler, M. (2019). *Exploratory Testing*. Retrieved from https://martinfowler.com/bliki/ExploratoryTesting.html

Goldratt, E. (1984). *The Goal.* Great Barrington, MA: North River Press. Retrieved from https://en.wikipedia.org/wiki/Critical_chain_project_management

Graeber, D. (2018). *Bullshit Jobs.* Simon & Schuster.

Hirschman, A. (1970). *Exit, Voice, and Loyalty.* Retrieved from https://en.wikipedia.org/wiki/Exit,_Voice,_and_Loyalty

Hock, D. (2000). *The Nature and Creation of Chaordic Organizations.* Retrieved from The Systems Thinker: https://thesystemsthinker.com/the-nature-and-creation-of-chaordic-organizations/

Hock, D. (2017). *The Global Epidemic of Institutional Failure.* Retrieved from Essays by Dee W. Hock: http://www.deewhock.com/essays

Horowitz, B. (2019). *What You Do Is Who You Are.* Retrieved from http://www.harperbusiness.com/book/9780062871336/What-You-Do-Is-Who-You-Are-Ben-Horowitz-Foreword-by-Henry-Louis-Gates/

Khaimovich, L. (1995). *Impact of Culture on Learning: Some Thoughts*. Retrieved from http://khaimovich.name/cul_on_l.html

Khaimovich, L. (1999). *Toward a Truly Dynamic Theory of Problem-Solving Group Effectiveness: Cognitive and Emotional Processes during the Root Cause Analysis Performed by a Business Process Re-Engineering Team.* Retrieved from http://khaimovich.name/disabstr.html

Khaimovich, L. (2016). *Your High-Tech Startup is a Success! Can This Be Sustained?* Retrieved from https://www.linkedin.com/pulse/your-high-tech-start-up-success-can-sustained-leon-khaimovich/

Löwy, J. (2020). *Righting Software: A Method for System and Project Design.* Boston: Addison-Wesley.

Levchuk, Y. N., Pattipati, K. R., & Kleinman, D. L. (2005). *Analytic Model Driven Organizational Design and Experimentationin Adaptive Command and Control.* Retrieved from https://apps.dtic.mil/dtic/tr/fulltext/u2/a440207.pdf

Lewin, K. (2020). *Kurt Lewin*. Retrieved from Wikipedia: https://en.wikipedia.org/wiki/Kurt_Lewin#Action_research

Noonan, W. R. (2018). *Overcoming Defensive Routines in the Workplace.* Retrieved from Systems Thinker: https://thesystemsthinker.com/overcoming-defensive-routines-in-the-workplace/

Pearl, J., & Mackenzie, D. (2018). *The Book of Why: The New Science of Cause and Effect.* Retrieved from https://www.theatlantic.com/technology/archive/2018/05/machine-learning-is-stuck-on-asking-why/560675/

Rowghani, A. (2016, November 29). *What's the Second Job of a Startup CEO?* Retrieved from https://blog.ycombinator.com/the-second-job-of-a-startup-ceo/

Schein, E. H. (2013). *Humble Inquiry: The Gentle Art of Asking Instead of Telling.* Retrieved from https://www.lean.org/common/display/?o=3109

Simon, H. A. (1947). *Administrative Behavior: a Study of Decision-Making Processes in Administrative Organization.* New York, NY: Macmillan.

Soper, S. (2020, September 1). *Amazon Drivers Are Hanging Smartphones in Trees to Get More Work.* Retrieved from Bloomberg: https://www.bloomberg.com/news/articles/2020-09-01/amazon-drivers-are-hanging-smartphones-in-trees-to-get-more-work

Tunguz, T. (2016). *Building the Machine - Organizational Design in Startups*. Retrieved from https://tomtunguz.com/organizational-design/

Weinberg, G. (2016). *Preventing a Software Quality Crisis.* Retrieved from http://secretsofconsulting.blogspot.com/2016/09/preventing-software-quality-crisis.html