Accountability, Consequences, and Opportunities to Fix One's Mistakes

The Science of Resilience

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Definition

Steps of Restorative Justice

While accountability, reasonable consequences, and opportunities to fix one's mistakes can exist as separate concepts, they are often tied together and exist interdependently with each other in a process of restoration and resilience-building. Specifically, in Restorative Justice models, accountability, reasonable consequences, and opportunities to fix one's mistakes are key steps that build upon each other. According to professors of law, Wexler and colleagues (2019), acknowledgement and responsibility-taking are the first to steps in a restorative justice process. Together, these actions constitute accountability. Acknowledgement is when the offender expresses an understanding of the wrong done and how it affects the victim(s). Accountability is most often defined as taking responsibility for one's actions (Ax et al., 2020; Henry et al., 2015; Hyde et al., 2016; Karp & Sacks, 2014; Pavelka & Thomas, 2019; Schiff, 2013). Yet, one cannot truly take responsibility for their actions before they understand how those actions affected others; thus, both acknowledgement and responsibility-taking are part of the process of accountability, the first step in restorative justice. Accountability is necessary for consequences to be meaningful and for opportunities to fix one's mistakes to be provided; without accountability, no growth or resilience can occur (Alexander, 2020). The next step of restorative justice is harm repair. Wexler et al. (2019) note that this step often includes monetary compensation, an apology, and/or community service, particularly service that relates to the underlying harm such that it addresses the damage done to the victims/ community or the issues the offender is struggling with that caused them to offend through therapy. This step represents the consequences, decided upon through conversation with the offender, the victim, and the community, which gives the offender the opportunity to fix their mistakes and, eventually, be reintegrated into the community. The next step Wexler et al. (2019) identify is non-repetition, or the expectation that the acceptance of responsibility and lessons learned through fixing one's mistakes would result in changed behaviour. This step represents the process of growth and resilience building, such that individuals develop a better accountability to their actions and understanding of the consequences of their actions. The final step is the redemption and reintegration of the offender (Wexler et al., 2019). These are the steps that constitute a restorative justice process, and in areas outside of the justice system, facilitate resilience.

Accountability and Consequences

As previously noted, accountability is most often defined as responsibility for one's actions; responsibility for one's actions can then be understood as firstly being aware of how one's actions will affect others, that is, the consequences of one's actions, and secondly, accepting the consequences that result from one's actions. Early definitions of accountability defined it as the expectation that one may be called on to justify one's actions with the belief of

a consequence based on evaluation (Han & Perry, 2020a). Thus, conceptualizations of accountability have often been tied to the idea of consequences. On the flip side, the literature on consequences agrees that consequences are a way to teach children how to take responsibility for their actions (Pepper & Roberson, 1982). Logical consequences offer children a choice between an acceptable behaviour and a misbehaviour with a clearly defined and agreed upon consequence, by doing so, they give children responsibility over their actions and hold them accountable to their choice of action (Talp, 2009). Similarly, De Groot and Steg (2009) found that an awareness of the consequences of one's behaviour impacted the responsibility one felt over their actions; thus, an awareness of consequences can lead to greater accountability in adults as well as children.

Accountability and the Opportunity to Fix One's Mistakes

Having the opportunity to fix one's mistakes is a valuable learning experience and can facilitate an offender's reintegration into a community. Yet the opportunity cannot be given if the offend does not own up to their mistake. The opportunity to fix one's mistake is provided by external actors, but the individual must first accept responsibility for the mistake and be willing to reflect on it and take the necessary action to amend it. As Shapland et al. (2006) state, "all restorative justice between individuals is predicted upon the 'offender' having acknowledged that the offence has occurred and having taken at least some responsibility for having committed the offense" (p. 507). Wexler et al. (2019) point out that most restorative justice programs are only available to those who acknowledge their wrongdoing. In her research on the #MeToo Movement, Alexander (2020) found that, while the discussion had begun to pivot to what the men accused of sexual harassment could do to be reintegrated into their communities, many of them had only conditionally apologized or denied the accusations, showing little to no accountability for their actions. Even offensives of a less serious or criminal nature require accountability for opportunities to amend them can be seized upon. Mistakes made in the workplace can lead to exploration learning and greater innovation and creativity, but only if mistakes are owned up to (Weinzimmer & Esken, 2017). Conversely, having the opportunity to fix one's mistakes can also build an individual's accountability as repairing the harm caused by a mistake allows individuals to take immediate responsibility for their actions and understand the consequences on a deeper level. For example, community service in an area directly related to the offense is a common way restorative justice programs give youth an opportunity to repair the harm caused by their actions; working with the community they harmed has been shown to help the offender understand the harm they caused through their actions (Thomas & Hunninen, 2008).

Consequences and Opportunities to Fix One's Mistakes

Reasonable consequences and opportunities to fix one's mistakes both occur at the same stage of the restorative justice process: making amends. Both are primarily conceptualized as learning opportunities, and, in ideal circumstances, both are logically and

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meaningfully related to the mistake/ transgression. While the opportunity to fix one's mistakes encompasses a wide range of situations, in restorative justice models, as Wexler et al. (2019) notes, these opportunities tend to focus on either repairing the harm caused or addressing the underlying issues of the offender. Community service and therapy are ways are common elements of restorative justice that target each focus respectively. Thomas and Hunninen (2008) define meaningful community service as that which allows offenders to interact with community members, provide tangible benefits to people in need, and in some way (symbolic or not) is relevant to the offence. Hyde et al. (2016) found that youth felt that restorative practices were meaningful when they gained personal insights or improved their relationships through therapy. Thus, like logical consequences, opportunities to fix mistakes should be materially or symbolically related to the offense/ mistake. Shapland et al. (2006) argue that a core element of restorative justice is that the parties involved in the offence collectively resolve how to deal with the aftermath of the offence; this element is manifested in victim-offender mediations or conferences whereby the parties agree upon a set of reasonable consequences for the offence as well as ways in which the offender can repair the harm the caused. These means that consequences and opportunities to fix mistakes may both be present in the outcome of restorative justice, such as community service.

Stand-alone Definitions

Of course, accountability exists all the time, not only after one has done something wrong. We are always accountable to the people in our lives. Similarly, opportunities to fix mistakes can come after even minor mistakes that do not require a full restorative approach or significant consequences. Then, consequences can be either positive or negative, for example, positive reinforcement is a type of consequence for appropriate behaviour. Stand-alone definitions are provided below.

Accountability

Accountability is most often defined as taking responsibility for one's actions (Ax et al., 2020; Henry et al., 2015; Hyde et al., 2016; Karp & Sacks, 2014; Pavelka & Thomas, 2019; Schiff, 2013); while the organizational workplace literature tends to define accountability as the expectation that one may be called on to explain an action to the salient audience(s) with the belief of a consequence based on evaluation (Han & Perry, 2020a). Painter-Morland (2006) looks at two contrasting concepts of accountability in the literature, from Nietzsche's claim that accountability only follows from an allegation or accusation made by someone who has the power to mete out punishment, to Judith Butler's (2005) theory that giving an account can be motivated by being in a relationship with another and feeling the need to maintain that relationship through narration. Painter-Morland (2006) proposes a shift from being accountable *for* something, as in Nietzsche's thought, to being accountable *towards others*. Butler's (2005) concept of accountability is rooted in the context of relational life and as such is similar to Wilson's (2008) concept of relational accountability based in Indigenous ontology. Another

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similar concept is Cimmarusti and Gamero's (2009) compassionate accountability, which suggests utilizing supportive and caring relationships to teach accountability. Many organizational scholars also acknowledge that it is interpersonal relationships that shape the nature and extent of accountability (Hall & Ferris, 2011). In the restorative justice model, the offending behaviour is viewed as an act against another person or community and the focus is thus on restoring those relationships (Gatfield & Winter-Simat, 2019; Pavelka & Thomas, 2019). Accountability is intrinsically rooted in our relationships because relationships come with the expectation of accountability to each other, or a mutual obligation, respect, and trust (Hall et al., 2003; Hall et al., 2004; Kajner et al., 2012; Wilson & Wilson, 1998). Many theorists recognize accountability as the basic principle upon which societies are formed because social systems are comprised of sets of shared expectations for behaviour (Hall et al., 2003; Hall et al., 2004; Hall et al., 2009).

Accountability is a resourced quality because it comes from our relations in that we recognize our accountability mainly in relation to others and that relationships can foster accountability. The concept of relational accountability has mostly been used in discussions of ethical and collaborative research with Indigenous peoples; however, it also provides a valuable framework of accountability towards others. First described by Wilson (2008) is his book *Research is Ceremony: Indigenous Research Methods*; Wilson discussed relational accountability in regards to Indigenous peoples in Australia and Canada, but acknowledged that other Indigenous and non-Indigenous groups may share this paradigm of relationality. Indeed, Kohli and Pizarro (2016) make a case for communities of Colour, specifically teachers in relation to their students, experiencing relational accountability; this was experienced as teachers feeling a deep commitment and responsibility to their students that often went beyond school mandate. Wilson (2008) describes how, for many Indigenous peoples, "we could not *be* without *being in relationship* with everything that surrounds us and is within us. Our reality, our ontology is the relationships" (p. 76). Rooted in this ontology, Indigenous axiology, or value system, is being accountable to all of one's relations (Wilson, 2008; Wilson & Wilson, 1998). Relational accountability represents a deep commitment to all of one's relationships. Kajner et al. (2012) explains relational accountability as being responsible for our actions "in relations to others, not in isolation" (p. 265). Thus, while accountability can be understood as taking responsibility for one's actions, this concept only bears weight in relation to others, that is, we are responsible to each other for our actions and their consequences. This accountability is a product of being in relation with other people.

Compassionate accountability explains how relationships can build our accountability. The concept was first described by Cimmarusti and Gamero (2009) in the context of youth residential settings. They proposed the concept as an alternative to traditional techniques for holding youth residents accountable, which are typically shame-based and discipline oriented where the youth should feel ashamed of their offending behaviour as a means to decrease the likelihood of it happening again. Cimmarusti and Gamero (2009) propose compassionate accountability as a method of utilizing relationships to teach personal responsibility.

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Compassionate accountability is a trauma-informed model that recognizes youths' trauma history, level of functioning, mental illness, and overall wellbeing. It recognizes the action that the youth is to be accountable for is positioned within a larger framework of their well-being. This concept is present in restorative justice models which focus on creating social support to elicit honest dialogue with the offender and their personal investment in the restorative process (Karp & Sacks, 2014) and in many youth-serving community organizations (c.f. Ax et al., 2020; Dill & Ozer, 2019; O'Donoghue & Strobel, 2007).

Reasonable Consequences

Every action has a consequence and knowing this helps us feel as though our actions have meaning and structure. Consequences help us make sense of the way the world works. Although we typically think of consequences as negative things, they can be either positive or negative depending on the action. Parents and teachers can use positive and negative consequences with children to teach them socially accepted behaviour and values, as well as responsibility for their actions. Consequences also play a role in restorative justice practices in schools, although these are usually negative as they are addressing transgressions of school values or rules. The key aspect of consequences is that they should be reasonably connected to the behaviour that inspired them.

There are two main types of reasonable consequences often used in child rearing: natural consequences and logical consequences. Natural consequences represent the natural flow of events without the interference of an adult (Pepper & Roberson, 1982) and they allow children to learn from the natural order of the world (Talep, 2009). For example, if a child doesn't eat their dinner, they will be hungry for the rest of the night. Parents allow unpleasant but natural consequences to happen when a child acts in an undesired way, expect when the health or safety of a child is involved, such as if they were about to run onto a busy road without looking. Pepper and Roberson (1982) distinguish between applied consequences and logical consequences. According to these authors, an applied consequence is an in-the-moment application of a consequence by an adult for a child's misbehaviour. It is logical in that the consequence relates to the misbehaviour, but it has not been discussed or agreed on previously. Applied consequences may happen the first time a child misbehaves in a particular way; later, the adult and child can discuss the situation and agree on the consequence. From then on, it is a logical consequence. Logical consequences, as opposed to natural consequences are arranged by the parent, or other caregiver/ authority figure. Logical consequences are inherently linked to the behaviour, and as such, it provides the child with information about the nature of their behaviour, its impact on themselves and others, and how they can take responsibility for their action. Logical consequences give children a choice because they know, understand, and accept the consequence beforehand; thus, it is the child's choice whether to behave in the desired way or misbehave and accept the consequences of that choice. In this same vein, logical consequences must be used without strings attached and the adult must accept the child's choice.

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Positive reinforcement is a common technique to help learning and behaviour change that can be conceptualized as positive consequences. Positive reinforcement aims to increase the occurrence of a desired behaviour, whereas consequences tend to aim to decrease an undesired behaviour. Hardy and McLeod (2020) distinguish between natural and contrived reinforcers. According to these authors, natural reinforcers are directly related to a child's behaviour and mimics the everyday reinforcement of behaviours; they give the example of if a child is working on asking for items from peers and they ask a peer for a turn with a toy, the natural reinforcer would be that the child gets to play with the toy (Hardy & McLeod, 2020). Contrived reinforcers do not occur naturally in the environment and are not logically connected to the behaviour in the same way; for example, if the child asks their peer for a turn with the toy, the teacher giving them a piece of candy for asking would be a contrived reinforcer (Hardy & McLeod, 2020). Although Hardy and McLeod suggest using natural reinforcers whenever possible, they also acknowledge that contrived consequences are often necessary to initially link the desired behaviour with a positive reinforcer. Contrived reinforcement can be paired with natural reinforcement and, over time, fade to only the natural reinforcer. Hardy and McLeod (2020) also identify four categories of positive reinforcement: social, e.g. verbal praise, thumbs up, or a high five; tangible, e.g. a desired toy; edible, e.g. a desired food; and activity, e.g. singing a favourite song.

Both logical consequences and positive reinforcement are methods of teaching and socializing children to acceptable and useful behaviours and skills, but more than that, when adults implement consequences and reinforcement, children get the sense that their lives have structure and that there are adults who care about their actions. Furthermore, children learn that their actions have consequences, increasing their sense of responsibility, and they learn that they can achieve and learn new skills, increasing their sense of self-efficacy.

Opportunities to Fix Mistakes

The idea of having the opportunity to fix our mistakes appears simple, but it can be applied to so many diverse situations. Mistakes can become opportunities for learning and growth in situations as far ranged as school tests (Cherepinsky, 2011) to criminal charges (Garbarino, 2018). There are two main theories exploring how mistakes can become opportunities for learning: the concept of counterfactual thinking (Smallman & McCulloch, 2012) and exploration learning (Weinzimmer & Esken, 2017). What is necessary for mistakes to provide new capabilities, knowledge, and skills is an environment that is tolerant of mistakes, that is, one that provides the opportunity to fix, and thereby learn from, one's mistake instead of simply punishing it. In order to take the opportunity to fix and thus grow from one's mistakes, an individual must accept responsibility for the mistake in the first place and be willing to reflect on it. Thus, the opportunity that mistakes present for learning, growth, and resilience is dependent on an interaction between the individual and the environment.

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Counterfactual thinking involves focusing on ‘what might have been’, contrasting an actual outcome with an alternative one. Functional counterfactual thinking helps an individual identify what they could have done differently to get a more desired result, thus it contributes to self-regulation, goal-setting, and, ultimately, the process of learning from mistakes. Smallman and McCulloch (2012) claim that “beyond simply dwelling on past failures, it is connecting thoughts about our past mistakes to future opportunities that both improves chances for self-regulatory success and makes counterfactual thinking functional” (p. 388). They found that relevant behavioural intentions are more likely to form for mistakes that occurred in the recent past and when the intention is framed within the near future (Smallman & McCulloch, 2012). That is, when people can reflect on mistakes made within the recent past and come up with a way to either fix that mistake or avoid making it again, they are more likely to act on that intention when it can be enacted within a short time frame as opposed to a far off future.

Exploration learning comes from organizational literature. It is often contrasted with exploitation learning, which relies on current knowledge being valid and useful and comes from successes (Weinzimmer & Esken, 2017). When one is successful, one assumes that one’s knowledge is sufficient and is therefore not motivated to learn more or try new ways of doing things. Successes confirm prior expectations, increase confidence in old routines, and discourage changing behaviours or cognitions (Ellis et al., 2006). Exploration learning, in contrast, often occurs after mistakes or failures and involves searching for new and superior solutions (Weinzimmer & Esken, 2017). Mistakes motivate people to correct them and understand their underlying causes, thus engaging in a productive learning process (Ellis et al., 2006; Harteis et al., 2008; Weinzimmer & Esken, 2017). In this conceptualization, mistakes are how we grow and develop new knowledge and capabilities that contribute to our resilience when we next face challenging situations. According to Weinzimmer and Esken (2017) “mistake tolerance is directly related to the process of exploration because it stimulates the development of new knowledge, skills, and capabilities following an unsuccessful event” (p. 328). Mistake tolerance creates an environment whereby people can make mistakes and learn from them; it provides them the opportunity to fix their mistakes.

Relationship to Resilience

Accountability

Accountability makes us aware of our obligations to our relations, as well as the expectations of behaviour that they have for us. Kajner et al. (2012) note that “through our accountability we demonstrate our understanding of, and commitment to, others, thereby earning their trust and furthering our own” (p. 265). Accountability puts us in trusting relationships with others, which in and of itself, is an important resilience resource. But it is also the expectations for behaviour and mutual obligation (Hall et al., 2003)/ deep commitment

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(Wilson, 2008) established by our accountability to others that provides us with order, predictability, support, and reasonable responsibility, all of which benefit the resilience process. Accountability is an important resource in adolescence and adulthood; below we will discuss accountability in youth-serving organizations and the workplace.

Compassionate Accountability in Youth-Serving Programs

Many programs serving at-risk youth employ compassionate accountability to improve the resilience of these youth. Work2Live is a program offered by Zero Ceiling in Whistler B.C. that provides subsidized housing, employment, adventure-based learning, and ongoing professional support to homeless youth. Specifically, the program aims to give youth who have experienced homelessness valuable employability skills and the capacity to live independently (Ax et al., 2020). Youth who have participated in the program describe one way in which it is effective in this regard, by having them take ownership of their actions and decisions in a supportive manner in order to fully engage with the program and opportunities it offers (Ax et al., 2020). Similarly, the East Oakland Youth Development Center (EOYDC) aims to equips youth, particularly youth of Colour, with the skills, training, and values needed to become dynamic leaders and responsible citizens; these youth identified the supportive accountability they received from the EOYCD staff as a major reason for why they were able to achieve their goals (Dill & Ozer, 2019). Dill and Ozer (2019) note how the EOYCD staff, and particularly Ms. Regina, the CEO and President, "holds the youth accountable, while also showing that this accountability comes with a sense of care and love" (p. 1621). In their study of community-based youth organizations, O'Donoghue and Strobel (2007) found that the open, egalitarian relationships between youth and adult "coaches" increased youths' sense of responsibility and accountability. While the youth were expected and required to take responsibility, this was paired with attentive and reciprocal relationships (O'Donoghue & Strobel, 2007). Thus, youth-focused community initiatives are most effective at equipping youth with the necessarily skills for them to overcome various adversities and lead a positive life when they encourage youth to be accountable through supportive relationships.

Workplace Accountability

Accountability has become a bit of a modern buzzword when applied to corporations, particularly in the wake of corporate scandals. Hall and colleagues (2003; 2009; 2011) assert that accountability is a multi-level concept that also operates at the individual level; specifically, they advocate for a subjectively experienced, "felt" accountability to capture how informal norms and expectations communicated through interpersonal relationships will influence employees' sense of accountability as much, if not more so, than the formal rules of the workplace. Han and Perry (2020a) claim that felt accountability is a state of mind, that is it to say, it is a state rather than an unchangeable trait and although it occurs because of external sources, it has to do with the way an individual perceived the world. That is why a system designed to hold people accountable results in people with different levels of felt

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accountability. Accountability is important in the workplace, as Hall and Ferris (2011) claim, "accountability keeps employees focused on the job at hand, and mentally engages employees" (p. 140). According to Han and Perry (2020a), accountability directs and guides people in their work while simultaneously conveying the notion that people are agents of and responsible for their own actions. Thus, felt accountability both supports employees in their tasks and givens them a sense of agency in their work. The literature has found many links between accountability and positive workplace behaviours, such as prosocial behaviour (Hall et al., 2009). Other workplace behaviours related to accountability include extra-role behaviour, which refers to tasks performed by employees that aid in organizational effectiveness but are not included in the employees' formal job duties (Hall & Ferris, 2011). A closely related concept is organizational citizenship behaviour, which is defined as behaviour that promotes the effective operation of an organization but is not formally recognized by an organization's reward system (Hall et al., 2009). Accountability is positively related to both extra-role behaviours (Hall & Ferris, 2011) and organizational citizenship behaviours, and through them, job performance, satisfaction, and involvement (Hall et al., 2003; Hall et al., 2009). However, there is also evidence that high accountability is related to job stress and tension and emotional labour (Hall et al., 2003; Hall & Ferris, 2011).

Reasonable Consequences

The majority of the literature on reasonable consequences comes from the child development literature. Wherein, the main function of consequences is to teach children about how the world works; this includes elements of socialization, autonomy, accountability, and, ultimately, resilience. Reasonable consequences can foster healthier relationships than other disciplinary options, including a lack discipline. Positive reinforcement can support children in continued learning and give them a sense of self-efficacy through their successes. While logical consequences as a disciplinary tool are less relevant in adulthood, an awareness of the consequences of one's actions has been shown to affect one's inclination to prosocial behaviour. Prosocial behaviour includes cooperation, helping, and many other behaviours that contribute to a strong social system; prosociallity is associated with multiple resilience resources and well-being.

Reasonable Consequences and Parenting

Children naturally learn from experiences; logical and natural consequences and positive reinforcement are methods of experiential learning. Pepper and Roberson (1982) claim that "we cannot "teach" responsibility; we must give it to children and let them learn how to handle it. We must allow children to choose and then to accept the responsibility for their choice" (p. 388). Logical consequences offer children a choice and teach them responsibility by holding them accountable to their choice; furthermore, they send the message that children are capable of thinking for themselves (Talep, 2009). Consequences help children develop a sense of responsibility, self-discipline, and internal motivation (Pepper & Roberson, 1982). Similarly,

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positive reinforcement can increase prosocial and communication skills (Hardy & McLeod, 2020), self-esteem, and the confidence to continue learning (Scott & Landrum, 2020). A key outcome of both consequences and positive reinforcement is the internalization of socially accepted behaviours and values. Internalization is an important socialization goal as it contributes to the emittance of socially valued behaviours even in the absence of external pressures or authorities (Robichaud et al., 2020b). Socialization also aims to help children to develop a sense of agency and ownership for their behaviours (Joussemet et al., 2014). As reasonable consequences do provide children a sense of responsibility over their actions and agency in deciding and problem-solving the consequences of their actions, they contribute to these resilience resources. The literature supports the use of positive reinforcement of appropriate behaviour for children exhibiting challenging behaviour (Hardy & McLeod, 2020). Feedback, which consequences and positive reinforcement inherently are, has been shown to help children discriminate right from wrong and develop a moral outlook (Scott & Landrum, 2020). Socialization is an important aspect of resilience as it allows children to function in society and navigate difficult situations with a strong value system.

Until recently, mild punishment was recommended as the most effective behavioural limitation strategy that could promote socialization (Mageau et al., 2018). Research on child development and parenting is clear that parents do need to establish clear rules and enforce some form of discipline in childhood (Robichaud & Mageau, 2020). Research has consistently found that a lack of parental authority during adolescence is associated with more problem behaviour (Robichaud et al., 2020a). Logical consequences could be described as authoritative parenting, which is associated with better child outcomes compared to authoritarian (mild punishment) or permissive (no discipline) parenting (Joussemet et al., 2014). Mild punishments refer to unpleasant, non-physical behavioural constraints or deprivation of privilege intended to suppress children's undesirable behaviours or make children comply with a broken rule. Mild punishments are not inherently linked to the misbehaviour, as logical consequences are, and instead often focus on a child's interests or what they will most mind losing. While it is the very nature of mild punishments to be unpleasant, logical consequences often are, but do not have to be unpleasant; for example, cleaning the living room after leaving a mess there can be done with fun music playing (Mageau et al., 2018). Often in logical consequences, children take responsibility for their misbehaviour by engaging in active problem-solving (offer reparation, changing their behaviour) or by experiencing the changes that their parents implement to stop their undesirable behaviour (Mageau et al., 2018). For example, if a child breaks their sibling's toy, they could be responsible for fixing or replacing it; if a child continues to watch TV before finishing their homework, their parent might shut off the TV until the child completes their homework. Thus, unlike mild punishments, children can make a direct link between their actions and its consequences, their responsibility for their actions and its impact on themselves and others, and what can be done to solve the problems caused by their misbehaviour. These are all learning experiences that will contribute to children's ability to respond to difficult situations and problems later in life. Furthermore, multiple studies have shown than young

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children (mean age = 10.42, SD = 1.04) and their mothers (Mageau et al., 2018) and adolescents (mean age = 15.28, SD – 0.79; Mageau & Robichaud, 2020; Robichaud et al., 2020a) find logical consequences to be as effective as mild punishment is ensuring a transgressive behaviour will not reoccur and more acceptable than mild punishments. Robichaud et al. (2020a) found that young adolescents (aged 14-15) anticipated that logical consequences would result in greater internalization and elicit more autonomous reasons for complying than mild punishments. It is important that as children grow, they comply with rules due to an autonomous belief in those rules rather than just a fear of punishment. Furthermore, Robichaud et al. (2020b) found that children (mean age = 10.42) considered logical consequences to elicited lower anger and higher amounts of empathy. These emotions are important to a child's social development, as research suggests that anger in response to consequences inhibits a child's internalization of the social norm and value (Mageau et al., 2018). Empathy, in contrast, allows children to take their parents' perspective and better understand and internalize the lesson they are trying to confer through the enforcement of a rule (Mageau et al., 2018). Additionally, empathy is an important resilience resource and encouraging it through logical consequences rather than punishments will benefit children's future resilience.

Reasonable consequences, by being empathetic to the child's position and involving them in the problem-solving aspect, allow for healthy negotiation. Children's negotiation with parental requests, rules, and consequences represents an adaptive strategy of expressing resistance where the child constructively articulates disagreement by engaging in a dialogue (VanPetegem et al., 2017). Parkin and Kuczynski (2012) claim that for adolescents, negotiation and even argument indicate a continued engagement in the parent-child relationship and are thus healthier than disengagement or covert disobedience. Negotiation is distinct from argumentation by the degree to which adolescents consider their parents' goals and values and attempt to accommodate them in their response (Parkin & Kuczynski, 2012). Thus, logical consequences, which elicit empathy from both parents and children for the other's position, can facilitate negotiation. Negotiation can maintain a parent-child relationship even when there is conflict over a broken or contested rule. Supportive relationships with adults and teachers are crucial during childhood and adolescence, logical consequences and negotiation allow these relationships to continue even during conflict, providing the child with a model of consistent support. Furthermore, Hartwell-Walker et al. (1985) found that consequences that were negotiated with older students tended to be the most effective.

Reasonable consequences are an effective component of parenting programs. In Leijten et al.'s (2019) meta-analysis of 154 studies, the authors found that the use of natural or logical consequences as a discipline technique and positive reinforcement, particularly praise, was associated with the stronger program effects on reducing disruptive child behaviour. Furthermore, a parenting program based on the use of natural and logical consequences, the Systematic Training for Effective Parenting (STEP) program, was adapted and shown to be effective in a high-risk environment (McInnis-Dittrich, 1996). McInnis-Dittrich (1996) used an ecological model to adapt STEP to Burley County (a pseudonym for the actual community) of

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12,000 inhabitants where aggressive and punitive child-rearing techniques are common and corporal punishment of children is considered appropriate in the home and school environment. There are also high rates of domestic violence, divorce, and child abuse. McInnis-Dittrich (1996) suggests that the families in this community are under extreme pressure but have inadequate skills for coping with the stress caused by poverty and social isolation. The parents who participated in the adapted STEP program had high exposure to an aggressive environment and personal experiences with harsh physical punishment as they had grown up being hit by their parents; these are both high risk factors for abuse of one's own children (McInnis-Dittrich, 1996). The ecologically adapted STEP program took this context and culture into account, as well as the lived experiences of the parents, and was able to impart a model of child guidance and discipline based on logical consequences. The feedback from parents was extremely positive and shows that reasonable consequences can benefit parents and children even in adverse environments, and perhaps confer additional protection and benefit in high risk environments.

Reasonable Consequences in the Classroom

Although much of the literature focuses on reasonable consequences in the home and parental domain, logical consequences and especially positive reinforcement can also benefit children in the classroom. Hartwell-Walker et al. (1985) notes that logical consequences play a key role in classroom disputes because they offer the child who misbehaves an honourable alternative in the form of a choice, thus preserving their dignity. Built into logical consequences is the chance to try again and make a different, better decision the next time; thus, they are an educational process that allows for the opportunity to demonstrate learning (Hartwell-Walker et al., 1985). Logical consequences can be implemented in classrooms as an opportunity for social learning. Positive reinforcement can also easily be implemented in classrooms to support children's learning academically and socially. The literature supports the use of positive reinforcement to facilitate positive behaviour and social skills for all children, as well as with children exhibiting persistent challenging behaviours (Hardy & McLeod, 2020).

Awareness of Consequences and Prosocial Behaviour in Adults

Schwartz (1977) developed the Norm Activation Model (NAM) to explain prosocial behaviour. The NAM includes three variables: personal norms, described as a feeling of moral obligation to preform or refrain from specific actions; ascription of responsibility, feelings of responsibility for the negative consequences of not acting prosocially; and awareness of consequences, whether someone is aware of the negative consequences for others when not acting prosocially (De Groot & Steg, 2009). Schwartz (1968) conceptualizes awareness of consequences as a personal orientation or "a disposition to become aware of the potential consequences of one's acts for the welfare of others during the decision-making process" (p. 358). De Groot and Steg (2009) found that the variables included in the NAM significantly explained a diversity of prosocial intentions, in both social and environmental contexts.

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Examples of the prosocial behaviour measured include donating blood, accepting energy-saving and car-use reduction policies, and local-level protesting and petitioning on issues affecting participants' neighbourhood. De Groot and Steg (2009) found support for NAM as a mediation model, such that ascription of responsibility mediates the relationship between awareness of consequences and personal norms, and personal norms mediate the relationship between ascription of responsibility and prosocial intentions and behaviour. The authors conclude that one must be aware of the consequences of behaviour before feeling responsible to engage in this behaviour or acknowledge that one's contribution may be useful, and before ultimately engaging in the prosocial act (De Groot & Steg, 2009). These findings match Schwartz's (1968) original claim that in order for a person's moral norms to affect their behaviour in a given situation they must first be aware that their potential acts may have consequences for the welfare of others and secondly, ascribe responsibility for these acts and their consequences to themselves. Schwartz (1968) also notes that even if a person denies their responsibility or the consequences of their actions, other may impose consequences on them to activate moral norms – this is the case with logical consequences as a disciplinary measure for children. Parents impose consequences on children to convey a sense of responsibility for one's actions and the internalization of moral norms for behaviour. In adults, an awareness of consequences predicts a higher correlation between personal norms and prosocial behaviours such as considerateness, reliability, and helpfulness (Schwartz, 1968) as well as volunteering (Schwartz, 1974).

Opportunities to Fix Mistakes

To err is to be human. It is impossible to avoid making mistakes, whether it is a mistake that harms mainly oneself, such as not studying for a test, or that hurts others. But it is also commonly understood that we can learn from our mistakes, and that mistakes can even be some of the best opportunities for learning. When we have the opportunity to reflect on and fix our mistakes, we increase our knowledge, skills, and capabilities for avoiding making similar mistakes in the future and handling other mistakes and life stressors, thus contributing to our resilience.

School-based Opportunities to Fix Mistakes

One common opportunity for students to fix and learn from their mistakes is through self-reflective grading. Cherepinsky (2011) describes self-reflective grading as "encourage[ing] students to develop the ability to find mistakes in their own work and fix them without relying on an external source for answers" (p. 295). The author notes that the ability to self-reflexively catch and fix one's mistakes is a valuable skill outside of school as well; this ability is a resilience resource when facing difficult school assignments, work tasks, and other life challenges. However, the literature shows that this is not a skill that students typically possess. Mason and Singh (2010) found that advanced university physics students did not use their mistakes on the midterm as opportunities to be better prepared for the exam; interviews revealed that many

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students would not look at their mistakes if they did badly on a homework assignment or exam because looking at their mistake made them feel bad. Thus, students do not naturally reflect on and fix their mistakes, they must be given explicit opportunity and instruction to do so. This is where the environment of learning and the teacher come in. Wenzel (2002) notes how the current environment of most academic settings emphasizes correct answers, such that "In most courses, mistakes measure a student's academic worth rather than act as a vehicle to deeper understanding" (p. 440). However, Wenzel (2002) also notes that teachers and instructors can play crucial roles in creating more supportive learning environments that allow students to address their mistakes in useful ways.

Cherepinsky (2011) provides one example of this facilitation when she introduced self-reflective grading to two of her university introductory math courses: second semester Applied Calculus (for non-majors) and a three-semester-long calculus sequence for engineering and physics majors. Thus, Cherepinsky piloted this method with two samples of students with different levels of prior knowledge and commitment to the material. Cherepinsky (2011) handed back exams with an "x" mark if there was a mistake in one of the questions, students had a week to resubmit their exam with a set of corrections, for which they would get back half the credit lost due to making the error in the first place. Students reported believing that they learned more from the exam with the use of self-reflective grading than traditional grading (Cherepinsky, 2011). Ferretti et al. (2019) offers another teaching method for neonatal-perinatal medicine students. They argue that running simulations allows instructors to implement short in-action debriefing and concurrent feedback moments such that students can recognize their mistakes immediately after making them and correct them while in the same mindset. Ferretti et al. (2019) argue that stimulation can create an environment, through instructors' critical yet positive attitude, in which mistakes can be carefully analyzed, rather than underestimated or justified, and fully understood without shame or embarrassment. They argue that it is in this kind of environment that mistakes, once explored and understood, can become sources of strength, dynamic knowledge, and new ideas (Ferretti et al., 2019).

Mistake Tolerance in the Workplace

Having a workplace environment that tolerates mistakes allows for employees to grow, innovate, and create new solutions (Harteis et al., 2008; Weinzimmer & Esken, 2017). Mistakes in the workplace can range from those that cause minor inconveniences to profit loss to harming individuals. Obviously the larger, more damaging mistakes should be avoided, but it is impossible to entirely eradicate mistakes and in many cases they can, in fact, be beneficial. Error Management Training (EMT) is an approach that encourages mistakes as a learning method (Keith & Frese, 2008). As in school, the key element in the workplace is a positive orientation towards mistakes that allows them to become the catalyst for growth and resilience.

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Weinzimmer and Esken (2017) outline a model whereby mistake tolerance in an organization leads to more exploration learning, that is, learning from mistakes, innovation, and creativity, which overall improves the productivity of an organization. Exploration learning comes from having the safety and freedom to make mistakes, fix them, and learn from them. It contains a critical-thinking processes that is lacking in exploitation learning, which relies on learning from successes and current knowledge being sufficient, and as such contributes more new and useful information to an organization (Weinzimmer & Esken, 2017). Weinzimmer and Esken (2017) define mistake tolerance as the conditions of an organization that allow members to take risks, pursue innovative solutions, and develop superior knowledge without fear of repercussions for making mistakes. There is growing evidence that allowing members to learn from their mistakes decreases an organization's risk of failure, enhances organizational reliability, and helps accomplish goals such as service quality, adaptability, innovation, and productivity (Weinzimmer & Esken, 2017). Weinzimmer and Esken (2017) found a positive relationship between mistake tolerance and organizational learning, as well as a direct and indirectly effect of mistake tolerance on firm-level performance.

Error Management Training (EMT) takes a similar view of mistakes, seeing them as an integral part of learning. This is because EMT has its theoretical foundation in action theory, which sees action-orientated mental models as the basis of work-related action (Keith & Frese, 2008). These mental models are best acquired by actively dealing with the subject matter and errors provide necessary feedback about where the model is not adequately developed (Keith & Frese, 2008). Similarly, Weinzimmer and Esken (2017) define mistake tolerance as a "learning by doing" approach. Error training has often been equated to exploration learning (Heimbeck et al., 2003). EMT has two critical elements: active exploration and error encouragement. Active exploration refers to the fact that participants are given only minimal guidance and encouraged to actively explore and experiment on their own. Error encouragement refers to the error management instructions participants are given, which tell them to expect errors and emphasizes the positive informational feedback of errors for learning. Keith and Frese's (2008) found in their meta-analysis of 24 studies that both active exploration and error encouragement significantly contributed to the efficacy of EMT. Their meta-analysis further revealed that EMT leads to better training outcomes compared with training methods that do not encourage errors during training (Keith & Frese, 2008). Furthermore, EMT was most effective for adaptive tasks, that is tasks not covered during training (Keith & Frese, 2008); this finding shows that EMT teaches not just specific tasks but knowledge, skills, and competencies that is transferable to a variety of other tasks. Supporting this interpretation, Keith and Frese (2005) found that EMT improved self-regulatory skills, including reducing negative emotional reactions to mistakes and setbacks and metacognitive activities related to planning, monitoring, and evaluating one's progress during task completion. These are key skills for handling challenging tasks and the associated stress. Thus, a workplace environment that not only tolerates mistakes but views them positively as opportunities for active learning can facilitate

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their employees' capabilities and skills for work-specific tasks as well as challenges and adversity outside of the workplace.

Restorative Justice

Accountability, reasonable consequences, and opportunities to fix mistakes are exemplified in processes of restorative justice. Restorative justice is an alternative to conventional disciplinary practice, which engages individuals in a process of ""building and strengthening relationships, showing respect, and taking responsibility" for actions" (Teasley, 2014, p. 132 cited in Gatfield & Winter-Simat, 2019, p. 51). The focus of restorative justice is repairing the harm caused by transgressive behaviour conceptualized within a relational framework. The restorative justice model asserts that holding offenders accountable is not about asking them to "take the punishment" but rather ensuring that they take responsibility by making amends to their victims and the community harmed. This conceptualization is similar to logical consequences, which are focused less on the punishment aspect than on building accountability by giving actors responsibility over their actions and their consequences. Additionally, by having a central focus on making amends, offenders are given the opportunities to fix their mistakes. In this way, they can actively assume responsibility for their behaviour rather than passively accept a punishment (Karp & Sacks, 2014; Schiff, 2013). A prime characteristic of restorative justice models are that they treat the offender as an autonomous actor capable of taking responsibility for making things right (Karp & Sacks, 2014), as such, it involves offenders, as well as community members and the victim(s) if they are willing, in the process of coming up with the solution rather than external 'experts' (Reyes-Quilodran et al., 2019). In this model, offenders face meaningful consequences, often through victim offender mediation, through which offenders realize the harm their actions have caused and take responsibility for those action. They are then provided with opportunities to repair the harm they caused through repairing the relationship with the victim and the community. The restorative justice system seeks to make offenders aware of their accountability obligations to the victims and their communities and support them in fulfilling those obligations and reparations (Bender et al., 2006); thus including elements of accountability, reasonable and meaningful consequences, and opportunities to fix mistakes. Restorative justice models are often used in the juvenile justice system, but they have also been implemented in schools and in community settings with adult offenders.

Juvenile Justice Systems

In 1988, Maloney, Armstrong, and Romig reimagined the juvenile justice system founded on three goals: protection of the community, youth accountability to victims, and the development of basic competences to prepare juvenile court-involved youth for productive roles in their community (Pavelka & Thomas, 2019). These goals involved into The Balanced Approach, a restorative justice framework for which includes the principle of accountability, defined as "when a juvenile commits a crime, the juvenile incurs an obligation to make amends

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to the victim and the community, this principle may be achieved through actions and deeds designed to help the youth repair the harm to the extent possible" (Pavelka & Thomas, 2019, p. 41). In this framework, accountability in enacted when the juvenile offender accept responsibility for their behaviour and actively work to repair the damage to the victims (if the victims wish) and the community, and face victim or victim representatives (if the victims wish) and community members. Thus, these youth are required to face the consequences of their actions through interactions with victims and community members and then they are given the opportunity to make amends. Pvaelka and Thomas (2019) outline three outcomes of the Balance Approach to Restorative Justice: firstly, victims are acknowledged as having been harmed and receive meaningful assistance in addressing the harm and are given opportunities for input and appropriate participation in the resolution of the crime; secondly, the community is seen as an essential partner in holding offenders accountable, addressing the needs of victims, and integrating offenders into the community as positive productive citizens; finally, offenders are held accountable for their crimes in ways that are meaningful to their victims and their community and that provides the offender with the opportunity to change and grow as healthy, positive community members. These outcomes include accountability, reasonable consequences, and opportunities for offenders to fix their mistakes. Accountability is foregrounded in the acknowledgement of the harm done to the victim(s) and the community. Consequences that are meaningful to the victim(s), community, and offender are decided by input from the victim and the community. Finally, the offender is given the important opportunity to learn and grow from their mistake and reintegrate into their community. Evidence indicates that restorative justice approaches are effective at increasing youth accountability and providing tangible consequences for harmful behaviour (Pavelka & Thomas, 2019).

Victim-offender mediation is one of the most common elements of juvenile restorative justice. Victim-offender mediation models are present in England, Italy, Sweden, and Chile (Reyes-Quilodran et al., 2019). The main goals of mediation are to give people the opportunity to take responsibility for their lives, to support victims and offenders, reduce the negative consequences of crime, and prevent future crime (Reyes-Quilodran et al., 2019). Victim offender mediation aims to improve juvenile offenders' capacity to empathize and understand the consequences of their actions by having them become more accountable to the victims of their actions. Offender accountability is a key outcome of mediation, as well as victim and offender input into the consequences offenders will face. Victim and offender open dialogue in a safe space is key to invoking offender accountability and reaching an understanding of how the offender can make amends for the harm they caused. There is also a strong focus on the future, which allows for apology and forgiveness, as well as a way to envision and pursue new pathways forward for both the offender and the victim (Reyes-Quilodran et al., 2019).

An illustrative example of juvenile restorative justice in practice is Hyde et al.'s (2016) study of the extrajudicial sanctions (EJS) granted under the Youth Criminal Justice Act (YCJA) in Ontario. EJS occur when a young person is formally charged but granted a sanction by the

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judge; the young person must make a single appearance in court where they are told that the Crown is offering an EJS. To accept they must accept responsibility for the illegal behaviour in writing and fulfil the requirements of an EJS coordinator, which may include writing a letter to the victim or an essay, community service, attending counselling, peer mediation, or an education/ information session. Hyde et al. (2016) interviewed 20 youth, aged 12 to 17, who accepted an EJS. The youth in this study defined accountability as "taking responsibility for your actions" (p. 205); the majority of youth associated accountability with the process of getting caught and coming to court, as well as learning a productive lesson from the experience.

These youth felt that the consequences they experienced as part of the EJS were meaningful when they involved important relationships or learning a lesson from the experience. These responses match with the idea of accountability as inherently relational; improving youth's relations with their families, the people they primarily are accountable to, is felt to be meaningful and able to improve their accountability. The benefit of having the opportunity to fix mistakes is being able to learn from one's mistakes; thus, ESJ consequences that help these youth learn a lesson are giving them the opportunity to fix and learn from their mistake. Youth expressed positive views about EJS when they were involved with counselling that improved their family relationships. This is a consequence that takes into account the adversity these youth encounter in many life domains and how supportive familial relationships can help them. Youth also identified EJS elements as meaningful consequences when they helped them learn a lesson, specifically, when they gained insight into their own behaviour, learned more about themselves, and/ or learned new skills. This personal level of learning was seen as meaningful in contrast to the general knowledge they gained through the Shoplifting Prevention Program, which mainly focused on why stealing is bad. The youth already knew this and engaged in the illegal behaviour anyway, so they did not perceive this level of learning as a meaningful consequence capable of increasing their accountability. The Shoplifting Prevention Program did not give these youth new insights, relationships, or skills with which to build a more positive future; in contrast, the youth identified the counselling sessions they attended as meaningful because they taught them how to better handle situations of conflict and other personal insights and useful skills. Pavelka and Thomas (2019) offer another program often involved in juvenile restorative justice processes that may be more meaningful: victim awareness classes. These classes make juvenile offenders accountable and sensitive to what their behaviour does to the victim, as well as their families and the communities that they live in. This may be a program that has more relevance for youth offenders as it teaches them a relevant lesson and skills of empathy which will assist them later in life.

Many of the activities youth were required to fulfil for their EJS were not perceived to be meaningful consequences and were seen as ineffective at holding them accountable. Specifically, writing an essay was one requirement that the youth consistently identified as ineffective because minimal time or effort was put into the task and little was learned from it (Hyde et al., 2016). Other activities, such as the newspaper assignments and essays were deemed inappropriate by youth because they were unrelated to the offence they had been

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charged with. Hyde et al.'s (2016) finding supports what most of the literature on logical and reasonable consequences posits, that the consequence must be logically related to the transgression in order to meaningfully effect the individual and impart on them a lesson about their behaviour. Hyde et al.'s (2016) did find that negative elements of the EJS process, such as appearing in court and the time that, and other EJS requirements, took away from other areas of their lives were identified as a meaningful consequence. These consequences are inherently related to the offense, and as such are perceived to be meaningful. In Hyde et al.'s (2016) study, youth gained accountability through meaningful consequences and opportunities to fix their mistakes, which included improved relationships with their family or counsellors, greater personal insight, and important lessons that will aid youth in pursuing a more positive future.

Other activities that could have been prescribed as part of the EJS process are Pennsylvania's Victim/ Community Awareness Curriculum for Juvenile Offenders or "restorative community service" programs (Pavelka & Thomas, 2019). The Victim/ Community Awareness Curriculum aims to help youth understand and acknowledge the impact of crime on victims and communities and to write appropriate letters of apology. This may be a writing activity that is more relevant to the crime and teaches youth a lesson and is thereby perceived as a more meaningful consequence that helps them begin to fix their mistakes and take accountability of their actions by apologizing. Restorative community service programs are meant to benefit the community, allowing offenders to demonstrate their accountability and commitment to making things right with the victim and community. In these programs, the consequence of community service is a clear opportunity for the offender to fix their mistake by providing a valued service to the community. Many of the activities required by the EJS did not provide youth with the opportunity to take action to fix the harm caused by their offence or benefit the community in a positive way, which may be what's missing from the program. Community service is a common consequence in restorative justice. Thomas and Hunninen (2008) conceptualize community service as a way of repaying the community for the cost of the youth's delinquent action(s). They argue that it is a dually beneficial action for both the community and the offender. Community service can help young offenders develop critical thinking and problem solving skills; gain a better understanding of how to make constructive changes; form meaningful relationships with others; develop a deeper understanding of community problems; gain a sense of individual effectiveness; and recognize the need for involvement (Thomas & Hunninen, 2008). Furthermore, research shows that completing service is negatively associated with future crime and positively associated with employment, family formation, and other indicators of stability (Thomas & Hunninen, 2008). In order for community service to be beneficial, it must be meaningful. Thomas and Hunninen (2008) define meaningful community service as that which allows juvenile offenders to interact with community members, provides tangible benefits to people in needs, and in some way (symbolic or not) is relevant to their offence. An important goal of community service is to create a positive and lasting connection between the offender and the community and to shift community perspective from regarding

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the juvenile offender as a liability to an asset, thus facilitating their reintegration (Thomas & Hunninen, 2008). This community connection can then become a necessary resilience resource.

Case Study: Accountability with and without Compassion: Juvenile Justice System in New Zealand

Henry et al. (2015) provide an example of how accountability without supportive relationships or a focus on well-being can fail to benefit youth. In New Zealand, youth offenders fall under the jurisdiction of the Children Young Persons and Their Families (CYPF) Act, which allows youth offenders to be recognized as both offenders and victims in the hopes of creating just solutions that allow youth to craft meaningful identities that do not involve ongoing offending (Henry et al., 2015). To fulfill this goal, the CYPF Act aims to promote the well-being of children, youth, and their families within the context of their families and environment as well as ensure that they are held accountable and accept responsibility for their behaviour. The processes and procedures for managing youth offending are mainly carried about by the Family Group Conference (FGC).

In their first case study, as an example of juvenile justice characterised by both accountability and well-being/ support, Henry et al. (2015) follow the case of John, who was detained in a youth justice residential facility and mandated to complete programmes concerning drug use. Although John was upset about being detained in the residence, he accepted responsibility for his offending and realized that his actions likely justified the order. Assessments completed at the residence noted that John had a disrupted family life, witnessed violence and drug use amongst family, and that the recent death of an extended family member had a major effect on him; they also noted that John's mother showed interested in her son's case and how she could support him. The programs John completed at the residence and the staff there encouraged him to consider positive future options and to identify the support he needed to help him achieve this once he was released. The FGC then further recommended full-time attendance at a residential culturally based programme for indigenous youth. There, John was able to build a range of skills and knowledge and explore his interest in sports; his mother played an active role in encouraging him to stay in the programme. John also met with a Youth Transitions Service (YTS) worker who encouraged him to enrol in a health and fitness qualification based on his interest. Having completed the FGC requirements, the Court dismissed all charges against John a few weeks before he turned 17.

In their second case study, Henry et al. (2015) focus on Andrew to illustrate accountability without a focus on well-being. Upon his third offence, at 14 years old, Andrew was recommended community service, a continued curfew, written apologies to victims, referral to a community-based education worker to address his education issues, and a boxing training gym opportunity. However, the educational and boxing components of the FGC plan were not followed through on. Although Andrew was eventually enrolled in an educational programme, he was soon removed for causing trouble; Andrew described the course as boring. There appeared to be no attempt to discuss why the course did not engage or inspire Andrew

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or explore what could have been done differently. A year after the offence, the Court dismissed all charges against Andrew as he had fulfilled all the accountability requirements. A year later, Andrew was again arrested. He was again recommended community service, a curfew, written apologies to victims, an alcohol and drug assessment course, and referral to other services including YTS and a youth mentoring programme. It appears the YTS referral never occurred, and although Andrew received some counselling and attended one drug and alcohol treatment session, it focused more on his difficulty with drug use and resisting antisocial behaviour with friends than on the contextual factors, including his exposure to family violence, grief, and other well-being issues. Andrew did not receive any education from 14 years of age. Two years after his arrest, the Court again dismissed the charges, despite the lack of effective education or other well-being elements of the plan; the focus appeared to be only ensuring compliance with the accountability requirements. Andrew was left without any real education prospects or life skills that would allow him to pursue a life outside of antisocial and illegal behaviour.

Henry et al. (2016) cite Goshe's (2014) claim that the focus on accountability to the exclusion of the well-being of youth offenders is a significant threat because it does not effectively deal with the underlying causes of offending, which are often related to social and economic deprivation; the focus on accountability alone fails to deal with the real life situations that youth face. According to Cimmarusti and Gamero's (2009) concept of compassionate accountability, the action the youth is to be accountable for has to be situated within the larger framework of their well-being. Both John's and Andrew's offenses were embedded in complex lives including trauma, violence, and challenge; both accepted responsibility for their offending and completed actions to show their accountability. However, while John's process of accountability was paired with a focus on his well-being, his history and surrounding adversity, and his interests, Andrew's well-being, including educational opportunities and interests, were largely ignored. As a result, it can be argued that Andrew did not truly gain greater accountability for his actions as he was never meaningfully engaged in the restorative justice process. It could also be argued that Andrew was never truly given the opportunity to fix his mistakes, that is, engage in a process of rehabilitation that would prevent future offending, as the underlying issues of his offender were never addresses and he was not given the skills or supports to change his behaviour. In contrast, John's process of accountability leveraged his supportive relationships and leaned on his interests to provide him with further education and valuable skills for creating a positive future for himself. In contrast, Andrew's mother was never fully involved in the process; she reported feeling embarrassed, unconfident, and helpless during the FGC and that her requests for assistance moving out of the area to reduce the negative impacts on Andrew were largely ignored. With the lack of supportive relationships and meaningful engagement, Andrew did not experience compassionate accountability and little difference was made in his life as a result.

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Restorative Justice in Schools

School-based restorative justice models are focused on keeping the offender as an engaged member of the community, in contrast to zero tolerance models which use suspension or expulsion to punish the offender and remove them from the school community (Gatfield & Winter-Simat, 2019; Karp & Sacks, 2014; Schiff, 2013). Zero tolerance policies mean that schools have no mistake tolerance, such that misdemeanours such as tardiness, absence, and talking back to a teacher can result in suspension or expulsion. These actions explicitly prevent the student from addressing and fixing their mistake by removing them from the school community, even if temporarily. As previous research has shown (Ferretti et al., 2019; Smallman & McCulloch, 2012), when mistakes are not immediately addressed, it can be harder for individuals to learn from them or form beneficial behavioural goals to remedy their actions; thus, suspension limits students' ability to fix the mistakes that led to their getting in trouble. Zero tolerance policies are the polar opposite of the kind of environment in which mistakes can be reflected on and repaired, building knowledge, skills, relationships, and resilience. Research shows clear patterns whereby removing students from the school community contributes to student delinquency; furthermore, exclusionary practices, such as suspension interfere with students' educational progress and perpetuate a cycle of failure (González, 2012). Even more concerning, these zero tolerance practices contribute to students dropping out of school and can ultimately increase their contact with the juvenile justice system, creating what scholars call the school-to-prison pipeline (González, 2012; Schiff, 2013). Furthermore, these policies disproportionately affect minority and disabled students (González, 2012; Hantzopoulos, 2013; Schiff, 2013). In elementary classroom, zero tolerance measures lead to shame and humiliation in children who are developing self-awareness, enjoying membership in a group, and learning to take responsibility for their own actions, as well as damaging the student-teacher relationship (Erb & Erb, 2018). Like mild punishment, zero-tolerance policies use aversive experiences to deter the wrongdoer and the rest of the school community from breaking the rule again (Reyneke, 2019). González (2012) argues that "Instead of promoting learning in a safe environment, zero tolerance policies promote an irrational climate of fear" (p. 297).

The literature identifies restorative justice practices as one of the most effective policies for keeping youth in school and out of the "school-to-prison pipeline" because it engages youth with the supportive resource that schools can be (Ungar, 2014) rather than disengaging youth from that community (Gatfield & Winter-Simat, 2019; Schiff, 2013). Restorative practices in schools give students who misbehaviour or act out the opportunity to fix their mistakes by repairing the harm they caused (Davidson, 2014; González, 2012; Schiff, 2013). Restorative justice in schools centre on several core principles: focus on relationships first and rules second; give voice to the person harmed and the person who caused the harm; engage in collaborative problem-solving; enhance personal responsibility; empower change and growth; and include strategic plans for restoration/ reparation (Amstutz & Mullet, 2005 cited in Schiff, 2013). Similar to other restorative justice models, the focus is on relationships, increasing empathy and

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understanding through conversation with those harmed, and opportunities for the offender to make amends for their actions. Restorative justice practices ask the student(s) involved in the misdemeanour “How will the situation be repaired?” (González, 2012, p. 331), thus asking students to be self-reflexive about their behaviour and its effect on others (Davidson, 2014). By placing this responsibility on students to fix their mistakes, but still offering them the support necessary to handle it (Davidson, 2014), restorative justice practices empower youth to become responsible for their actions and their consequences. Schiff (2013) argues that allowing students the opportunity to repair the harm they caused and be responsible for their actions gives them a means of rebuilding their dignity. Reyneke (2019) suggests that a restorative approach involving natural or logical consequences is the most appropriate method for handling bullying. Reyneke (2019) argues that because bullying creates a constant stress response and bullies are often people who themselves have been bullied or otherwise traumatized, punitive approaches only serve to create further stress. Individuals who have been traumatized are not capable of dealing effectively with teachers that are authoritarian and occasionally disrespectful and uncaring to students in crisis (Reyneke, 2019). Instead, a restorative approach that connected a bully’s actions to their consequences and gives them a way to address the harm caused is more facilitative of the resilience of the offender, the victim, and the school community.

From the literature, Schiff (2013) finds strong support for restorative justice programs reducing recidivism rates, promoting positive relationships, reducing suspension and expulsions, and improving academic achievement in Canada, the United States, and Australia. Teachers and school administrators have cited restorative practices as effective for encouraging offenders to be accountable by hearing from the victim(s) about the consequences of their actions (O’Brian, 2005). Restorative justice practices implemented in schools in the U.S. have shown improvement in attendance, school tardiness, behaviour and decreased suspensions, expulsions, and referrals to law enforcement (González, 2012) and furthermore, have shown greater and longer-term promise for engaging youth in necessary structures of support than zero tolerance policies (Schiff, 2013). There are several examples of restorative justice approaches implemented in school, which will be detailed below.

Erb and Erb (2018) provide an example of how restorative justice principles can be implemented in an elementary school classroom. Five third-grade teachers noticed that their current system of classroom behaviour management utilized shame and humiliation to punish students and did not give them opportunities to fix their mistakes or truly learn from them (Erb & Erb, 2018). So, these teachers created the “Making Amends” System grounded in restorative justice principles. This system is meant to replicate the real-life skills needed to restore relationships and repair harm though meaningful action (Erb & Erb, 2018). In the Making Amends System, each third-grade classroom and specialist subject classroom have a Making Amends binder, which guides students in choosing how to make amends when either they or the teacher identified they had misbehaved. The concept of making amends was introduced to the third graders during the morning meeting using examples from children’s books, mainly

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Have You Filled a Bucket Today? This book described how each person carries an invisible, imaginary bucket that is filled with joy from positive behaviours and sadness from negative behaviours; making amends is equated to refilling the bucket of the person you have harmed. Later in the school year, teachers incorporated the concept of cause-and-effect and how actions effect the feelings of others, thereby helping students understand the consequences of their actions. Erb and Erb (2018) found that their students had many questions about the concept of making aments and that it required frequent revisiting for them to understand it. But they also found that students were able to identify the need to make amends and initiate the process on their own; "Whereas students previously reported playground incidents to the teacher after recess, they now request permission to go into the hall with the Making Amends binder. They return as two happy individuals. The teacher does not need to know what happened. Students shift quickly from a negative behavior to a positive action, and neither student nor teacher dwells on the negative" (Erb & Erb, 2018, p. 99). This excerpt illustrates students' increased accountability for their actions. Students had positive feedback for the system, and the teachers anecdotally cited a decline in the frequency and nature of office discipline referrals as students and teachers are now better equipped to handle behaviour such as damaging classroom property, unkind words exchanged between students, and disrespect of teachers (Erb & Erb, 2018). Erb and Erb (2018) conclude that the Making Amends system helps students develop skills of self-awareness, empathy, responsible decision-making, self-regulation, and constructive conflict resolution; all skills that will help them handle adversity later in their lives.

The Fairness Committee is a restorative justice approach that exists in a few different iterations at secondary schools in New York, as the committee is tailored to the school and its values. It is a rotating reparative committee that involves all members of the school community including students, teachers, and office staff. The Committee is put together on a case-by-case basis, drawing on the pool of the school population so as to include all school community members in the process (Hantzopoulos, 2013). The Fairness Committee, through dialogue with the perpetrator and the person who reported them, one teacher, two students, and a facilitating teacher, reach a consensus on the appropriate consequences, rather than simply meting out prescribed punishments (Hantzopoulos, 2013). The Fairness Committee allows for an investigation of the deeper issues behind the violation, so that the consequences can adequately and reasonable match the students' situation and they can receive support if needed (Hantzopoulos, 2011). Alumni students of schools with the Fairness Committee describe how it made the school community feel safe because it meant that there were consequences when individuals disrespected the community; one student contrasted this with her experience at college (Hantzopoulos, 2013). Overall, the Fairness Committee increased the accountability of students to others in the school community by giving the power of deciding the reasonable consequence for a misbehaviour to the school community.

In Australia, the Integrated Systems Approach (ISA) Model draws on restorative justice models to help youth who have disengaged from education return and complete a High School Certificate of Education. The ISA model has many learning goals for students. such as emotional

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growth, self-management, and accountability (Gatfield & Winter-Simat, 2019). A cornerstone of this model is that when mistakes are made the focus is on restoring relationships and building trust, which is achieved by providing a mediated forum whereby students who have caused offence can hear from those affected as well as being heard themselves (Gatfield & Winter-Simat, 2019). The goal of these mediated forums is to give the student who caused offence the chance to make amends for their actions (Gatfield & Winter-Simat, 2019). Of note in this approach, is that the ISA model is used with students with a with a range of personal challenges, including long-term disengagement from education; substance misuse; poor motivation and self-esteem; aggressive and/or violent behaviours; mental health concerns; social-emotional complexities; learning difficulties; intellectual impairments; complex family contexts; poverty; and homelessness. Thus, restorative justice principles are as effective with students facing multiple and complex adversities as they are with a general population of students. School-based restorative justice practices work by utilize the relationship between the offender and those harmed as well as those in the community to stimulate the offenders' accountability; reasonable consequences, with input from the community, and opportunities for the offender to fix their mistakes help the student become an engaged member of the school community.

Restorative justice approaches can also be integrated at the university level. Based on the literature, Karp and Sacks (2014) claim that there are six main learning goals of university student conduct processes. These include: just community/ self-authorship; active accountability; interpersonal competence; social ties to the institution; procedural fairness; and closure. Using data from the Student Accountability and Restorative Research (STARR) Project, a multi-campus study of college student disciplinary practices in the USA, Karp and Sacks (2014) compared restorative justice models against traditional moral code models. They found that students who engaged in restorative practices reported learning more on all six learning goals compared to traditional moral code hearings. The authors note that in restorative justice practices, students are first asked to listen to the accounts of those harmed by their behaviour, often leading to expressions of contrition and remorse which can lead the harmed parties to respond with, if not forgiveness, appreciation of the student taking responsibility. This process of accepting responsibility and building accountability allows for cooperative and inclusive decision making regarding just consequences and support systems to allow for the offender's continued membership in the community.

Adult Criminal Justice

Although restorative justice principles have been most commonly implemented in juvenile justice systems, there is also some applicability to adult criminal justice. Restorative justice focused on accountability is found in Circles of Support and Accountability (COSA). The *Miller b. Alabama* ruling illustrates how opportunities to fix mistakes can have a large impact, while the MeToo Movement illustrates the necessary role of accountability and consequences in addition to opportunities to fix mistakes.

Circles of Support and Accountability (COSA) are a community-based support and accountability system for adult sex offenders who have served their full prison sentence and

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are therefore released without an assigned parole officer. Offenders can "voluntarily consent to be held accountable for their actions in the community by a group of volunteers who, while acting as individuals, are members of an initiative that is funded by the Correctional Service of Canada (CSC) and responsible to the police and community" (Hannem, 2011, p. 275). COSAs employ restorative justice in that their aim is to support the offender's reintegration into the community. Hannem (2011) notes that COSAs contain aspects of "caring accountability" where the circle volunteers may at times be forced to challenge or reprimand the offender/ "core member," however, this accountability is always balanced by care and support and the core member is always respected as a valuable human being. COSAs originated in Canada and have shown extreme promise as reducing recidivism rates and providing the necessary support and accountability for core members to live a healthy, non-victimising lifestyle (Hannem, 2011).

In 2012, the Supreme Court ruled in *Miller v. Alabama* that mandatory sentences of life without the possibility of parole for murders under the age of eighteen are unconstitutional. The case of *Montgomery v. Louisiana* established that the *Miller* decision was to be applied retroactively throughout the country. In short, this decision gave hope to the many men and women who had been convicted of murders as teenagers and had been incarcerated with the expectation that they would never leave prison (Garbarino, 2018). A life sentence in prison gives the offender no opportunity to repair the harm they've caused, either through direct action or rehabilitating themselves, and as they are given no hope of ever leaving prison, they have no reason to try and reflect on their behaviour and make amends. The hope of parole, in these cases, then offers the opportunity and reason to address their mistakes and work towards a life without reoffending. As Garbarino (2018) relates, following the *Miller* and *Montgomery* decision, there was a flood of anecdotal evidence that people who had been incarcerated as teenagers with life sentences immensely improved their behaviour once given the hope of parole.

There has been some debate on what actions the men accused of sexual misconduct by the #MeToo can take to repair the harm done, and if that should even be part of the conversation at the moment. While Tarana Burke, the founder of the original metoo movement (not the hashtag) focuses her work on survivor support and community healing, others in the movement have made calls for a restorative justice approach, which typically involves repairing the relationship between the offender, victim, and community. Restorative justice usually has three key components: offender accountability, harm repair, and reintegration. Harm reparation is the offender's opportunity to fix their mistake and the harm they caused, and in the criminal justice realm, this is often done through offenders' commitment to rehabilitation and living a life free of reoffending (Ward & Langlands, 2009). When talking about repairing the harm caused by a serious, criminal offence, Shapland et al. (2006) found that in cases of restorative justice with adult criminal cases in England and Wales, symbolic reparation was much more common than material reparation. In their cases, symbolic reparation included apologies and participation the restorative justice process itself, in that the offender has acknowledged responsibility for the offence, has agreed to come to a meeting, has stated they

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have done the offence and has acknowledged that at least some harm has been done to the victim. Both symbolic reparations essentially boil down to accountability on the part of the offender. Additionally, the authors propose that a commitment to rehabilitation could be a form of symbolic reparation as the offender working to reduce their potential future offending could be seen as them working to fix the cause of their offending. Restorative justice has been implemented with the most effect with more minor crimes, such as property damage, or with juvenile offenders (Wexler et al., 2019); however, it has also been implemented with sex offenders, specifically the Circles of Support and Accountability (COSA) model (Hannem, 2011). However, a key aspect of the COSA model is that offenders must consent to be held accountable by the circle (Hannem, 2011). In restorative justice models, accountability is the crucial step before harm repair; in fact, like COSA, most restorative justice programmes are only available to those who have acknowledged their wrongdoing (Wexler et al., 2019). Thus, one reason why the #MeToo movement is struggling to address how/whether men accused of sexual assault can/should repair the harm they caused is that most of the accused have not accepted responsibility for their actions. Alexander (2020) found in an analysis of the public apologies following the wake up #MeToo, only 56% were full apologies, while many statements included denials that were characterized by anger and intensity. The literature shows that such emotions reduce the likelihood of the perpetrator changing their behaviour. While, there is a strong correlation between guilt and reports of self-growth which may be a "more adaptive response to perpetration" (Alexander, 2020, p. 27), only a small percentage of statements expressed a new understanding of their conduct and its impact, along with other evidence of self-growth (Alexander, 2020). Thus, the pathway from having opportunities to fix one's mistakes to resilience relies on both the environment being supporting of reparation and the individual being accountable for their mistake.

A major goal of restorative justice is the reintegration of the offender into the community; the community then becomes a resilience resource to support the offender in growing their resilience. Shapland et al. (2006) note that for adults in our modern society there is less of a "community" for the offender to be reintegrated into; instead, they found that restorative justice cases strengthened the individual bonds between offender and supports, victim and their supports, or even occasionally create bridging social capital through new bonds between victim and offender. In cases where the restorative justice process strengthened the bond between the offender and their supports, there was often an element where the supporters chose to be responsible for monitoring the outcome agreement of the process. That is, there was a formal acknowledgement that the offender would be accountable to their supporters. Thus, by increasing their social support, offenders' resilience still benefited.

Improving

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Accountability

Compassionate Accountability Guidelines

Cimmarusti and Gamero (2009) provide guidelines for compassionate accountability as a means of increasing accountability or personal responsibility in youth (within a residential setting):

1. Connecting:
    a. This approach necessitates the presence of a positive, healing relationship with the youth
    b. If a youth resists a reasonable request by staff, the first step is to attempt to connect with the youth and their underlying emotional state
    c. The goal of the connection phase is to validate the youth's feelings as genuine, to empathize with the youth, and to contain the emotions within a framework of safely managing reactions to past trauma
2. Collaborating:
    a. In this phase, the aim is to affirm the positive relationship between the youth and the staff member and to extend it in the service of accomplishing the request the staff made of the youth
    b. Staff ask youth how they can help them comply with the request/ complete the task. By returning to focus on the task, the youth is held accountable
    c. Using compassionate accountability instils in the youth a sense of capability as they are given the opportunity to successfully complete the task/ fix their mistakes
3. Wisdom:
    a. This phase focuses on the youth learning from the experience. It contains 5 goals:
        - To build the youth's ability to identify trauma reactions and to self-soothe
        - For youth to utilize healthy relationships to request help
        - For the youth to gain a sense of master through the accomplishment of the task
        - For the youth to react differently to similar situations in the future
        - For the youth to become aware of consequences
    b. Techniques to achieve these goals include positive reinforcement, questioning the youth on how they might do different next time, and starting a conversation about the consequences that would ensue due to the youth's initial non-compliance – it can also be helpful to engage the youth in determining specific consequences
4. Reviewing:
    a. In the final phase of compassionate accountability, the goal is to go over the event with the youth so they can evaluate the experience. "What was this like for you?" is the central question.

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Activities

Accountability Team Building Exercises from bizfluent.com (Harness, 2019)

Harness (2019) first notes that, because accountability is so important to a work team, it should be emphasized right off the bat by doing accountability introduction exercises. These consist of having each person in the group identify themselves by their name, their role in the team, and their skills. Harness (2019) claims that this will help foster a sense of trust and accountability between members as they will see that each person in the team has their own role and skill set that will help the team achieve their overall goal. Harness (2019) also notes that the manager must be as explicit as possible about their expectations and requests regarding team assignments, operations, and questions, as well as their responsibility as manager to the group.

- Classic Trust Falls
    - The activity must be accompanied by discussions of the importance of reliability and accountability
    - Before the activity, Harness (2019) suggests asking if anyone feels they couldn't actually catch their partners safety and emphasizing that it is better to be accountable when we know we are unable to do something rather than let others down by trying half-heartedly and failing. This means being honest when you know you don't have the skills necessary to do something.
    - After the activity is done, ask everyone to think about how important responsibility, focus, and accountability are in this exercise.
- Traditional Team Sports
    - Team sports are a great way to teach teamwork, reliability, patience, healthy competition, and accountability.
    - When organizing team sports for your workplace, it is important to consider if everyone is physically able to participate. If someone is in a wheelchair, recovering from a heart attack, etc. it is important to choose an exercise suitable to everyone, so that no one is left out.
    - Emphasize your teambuilding message whenever possible during the sport, reiterating the importance of everyone knowing their role on the team and taking responsibility when they make a mistake that hurts the rest of the team.
- Hold the Rope
    - This activity involves asking your group to imagine that they are hiking along a massive cliff and they need to climb up a rock face with only a rope keeping them from falling to their death. On the other end of the rope, one person in the group has to help pull everyone else to safety – the rope is secured through a bunch of pulleys, so body weight and strength are not factors. Ask everyone to write down the name of the person they would want to be holding the rope.

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  - Then, tell everyone to imagine they're now the one at the top of the rope and everyone else is at the bottom. They must help one other person get to the top – strength and body weight still aren't factors – ask them to write down who they would want to help.
  - Then, have everyone read out their two names and explain why they would want each person. Discuss how the person at the top is the person the team member trusts the most and finds reliable and dependable. The person they help is likely the person they consider the most important in the group.
- Gutter Ball or Pipeline
  - In this activity, groups compete to get a marble from one side of a room to the other in the shortest amount of time by running it along small sections of pipe that have been cut in half. If the marble drops, they must go back to the starting point.
  - The game can be made more challenging by adding obstacles.
  - The person with the marble can slow it down by tilting the pipe before the next section of pipe gets in place, but it isn't easy so it's important for another person to put their pipe in place as quickly as possible so it can be passed on.
  - Following the activity, have a discussion on the importance of stepping into the roles they are required to fill as quickly as possible, as well as the importance of being accountable rather than shifting the blame when the ball falls.

Reasonable Consequences

Autonomy-Supportive Interpersonal Climate when Enforcing Consequences:

Multiple studies have shown that logical consequences are most efficacious and accepted when accompanied by an autonomy-supportive (AS) interpersonal climate (Mageau et al., 2018; Robichaud & Mageau, 2020; Robichaud et al. 2020a, 2020b; VanPetegem et al., 2017). Robichaud et al. (2020b) argues that parents can create an AS interpersonal climate by acknowledging children's feelings, offering them an opportunity to actively participate in decision making or problem solving, and emphasizing the importance of the broken rule through the provision of rationales (e.g., highlighting the impact of the broken rule on others, the child, or the environment). VanPetegem et al. (2017) define an autonomy-supportive communication styles as one that asks for the child's input and empathises with the perspective of the child, offering choices about how expectations can be met and proving a meaningful explanation for rules. In contrast, parents create controlling (CTL) interpersonal climates when they pressure a child to change their behaviours and internal states through rebukes and threats (Robichaud et al., 2020b). Logical consequences, by focusing on solving the problems created by children's misbehaviour, easily lend themselves to involving children in actively solving the problem and offering children an experiential opportunity to understand the importance of the broken rule, and thus, match well with an AS climate. However, an extra

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focus on how one is introducing and talking about rules and consequences, to ensure that one is providing an AS climate, would benefit the implementation of logical consequences.

Autonomy-supportive (AS) interpersonal climates help promote empathy in children by facilitating their understanding of their parents' points of view and allows them to non-defensively assess the impact of their actions on themselves and others (Robichaud et al., 2020b). Controlling (CTL) climates are more likely to increase a child's feelings of anger, which can impede their internalization of the norms and behaviours parents are trying to teach them (Mageau et al., 2018; Robichaud et al., 2020b). The very purpose of an AS climate is to support a child's autonomy, that is their ability to think for themselves and make their own decisions in accordance with a personal value system. Logical consequences and positive reinforcement, with the help of an AS climate, can increase a child's sense of autonomy, which has been linked to numerous positive indicators of mental health, such as, self-regulation; positive classroom adjustment; social adjustment; and well-being (Joussemet et al., 2014).

Guidelines for Logical Consequences (Hartwell-Walker et al., 1985):

- Consequences are always directly, logically, and visibly connected to the situation
- They provide an honourable alternative in the form of a choice. Consequences provide a way out, a way to preserve dignity while compromising
- Built into consequences is the chance to try again. They are an educational process that allow for the opportunity to demonstrate learning.
- Consequences convey respect for the child by allowing responsibility to be placed where it belongs – with the child. The language of consequences may feel a bit contrived; it is intended to make clear to a child that the consequence is occurring because the child made a choice, not because the adult is mean, unfair, or out to get them.
- A teacher or parent should not lose their temper with consequences as that diminishes their effectiveness. Consequences are a matter-of-fact part of life and so can be stated as such. Remaining calm and friendly can also help preserve the relationship with the child

Guidelines for Positive Reinforcement (Hardy & McLeod, 2020):

- Determine child preferences
- Use a variety of potential reinforcers
- Consider children's strengths and needs – reinforcement is based on children's effort and individual skills; that is to say, different children may be rewarded for different tasks because they have different skill levels and needs
    - If a teacher is worried about other kids feeling that it is unfair that a child gets a special item or treat when they do not, the authors suggest explaining it as, "Tina is getting some extra help to follow the classroom rules" (p. 102)

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- Use reinforcement strategically – to support generalization and maintenance of behaviours, teachers should: use more natural reinforcers, rather than contrived; use intermittent reinforcement, for example on a fixed ration (every third time); and thinning reinforcement, increasing the number of responses required before a behaviour is reinforced or increasing the duration of time that elapses before a behaviour is reinforced
- Embed reinforcements in routines and activities so that children learn to use the targeted skills and behaviours in context
- Consider the role of relationships – "strong relationships between adults and children are foundational to supporting young children's learning" (p. 104). When providing positive reinforcement for desired behaviours, teachers must ensure that they are enhancing their established relationships with children – can do this by individualizing their reinforcement to meet each child's needs and capitalizing on each child's preferences, and ensuring they are providing reinforcement to all children
- Collaborate with families – so that the positive reinforcement provided in the classroom setting aligns with the desires and beliefs of the family; can also collaborate to identify reinforcers that can be used across contexts
- Evaluate reinforcement effectiveness – this requires ongoing data collection on the frequency, duration, or latency of child's desired behaviour

Scott and Landrum (2020) add the guideline that the least amount of reinforcement necessary to facilitate continued success should be used.

Interventions

Accountability

Victim Offender Mediation (VOM) processes

VOM processes are of the most common elements of restorative justice systems. It allows victims of crimes to meet the juvenile or adult offender in a safe and structured setting, with the goal of holding the offender directly accountable for their actions, while also providing support and compensation to the victim. Umbreit et al. (2004) conducted a comprehensive review of the work on VOM:

- VOM allows the offender to take direct responsibility for their actions, to learn the full impact of what they did, and to develop a plan for making amends.
- The most common application of VOM is for property crimes and minor assaults, in both adult and juvenile justice systems
- Participation is entirely voluntary for victims and as voluntary as possible for offenders (it is sometimes mandated as part of their court sentence)

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- VOM is dialogue-driven, with the focus on victim healing, offender accountability, and restoration of losses
    - The core feature of all VOM programs is facilitating some form of dialogue between victims and the offenders who have harmed them
- A humanistic model of mediation is used, such that the role of the mediator is focused on facilitating dialogue and mutual aid and includes "scheduling separate premediation sessions with each party; connecting with the parties through building rapport and trust while not taking sides; identifying the strengths of each party; using a nondirective style of mediation that creates a safe space for dialogue and accessing the strengths of participants; and recognizing and using the power of silence" (p. 280)
- Preparation has been identified as a key to the success of VOM programs and participants' satisfaction
- Begun in Canada in 1974, it is the oldest and most widely developed expression of restorative justice, with more than three hundred programs throughout the U.S. and more than twelve hundred programs in primarily Europe, but also Canada, Israel, Japan, Russia, South Korea, South Africa, South America, and the South Pacific
- Authors note that 40-60% of people offered the opportunity to participate in VOM refuse, thus, the high levels of satisfaction associated with the program may have something to do with the opportunity to choose/ self-selection
- A meta-analysis concluded that VOM youth reoffended at a statistically significant 32% lower rate than non-VOM youth, and when they did reoffend, their offenses were less serious than those of non-VOM youth

Victim/ Community Awareness Curriculum (Bender et al., 2006)

A curriculum designed to help juvenile offenders understand and acknowledge the impact of crime on victims and communities and write appropriate apology letters. The size of the group should be limited to a maximum of 15 offenders per two facilitators; co-facilitation is recommended.

Three to four-hour group sessions divided into three sections:

1. Introduction
    a. Welcome and Group Introduction
    b. Pre-test
    c. Group Contract
    d. Overview of Balanced and Restorative Justice
2. Impact of Crime
    a. Session 2 Introduction
    b. Role-Playing Exercise
    c. Feelings that Victims and Communities Experience
3. Names, Faces and Hearts

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a. Session 3 Introduction
b. Names, Faces and Hearts exercise to help offenders see their victims as real people with names, faces and hearts. The goal is to personalize crime but also help offenders learn that, although they have harmed others, they also have the ability to have a positive impact on people and communities through their actions
c. Apology Letter
d. Post-Test

The pre- and post-test include three open-ended questions: (a) “What crime did you commit?”; (b) “Who did you crime affect?”; and (c) “Name something you can do today for your victim and the community”. There is a “Victim/ Community Awareness: An Orientation for Juveniles” Curriculum document, including lesson plans and resources compiled by Valerie Bender.

Reasonable Consequences

Systematic Training for Effective Parenting (STEP) – Ecological Adaptation (McInnis-Dittrich, 1996)

STEP is an eight-session parenting-skills program based on the principles of logical and natural consequences of behaviour for children of all ages. It uses videotapes, homework assignments, and discussion to teach a nonphysical, logic-based approach to child guidance and discipline. STEP takes the perspective that, while misbehaviour is not condoned, a child does not need unreasonable harsh punishment to learn from the episode. While the original STEP program was effective and well used, McInnis-Dittrich (1996) found that it required an ecological adaptation in order to better address the context and needs of individuals in a high-risk environment, where domestic and community violence was prevalent and corporal punishment was supported. The traditional STEP program begins with a focus on children’s behaviour and misbehaviour to get parents to think about what children are really trying to accomplish with their behaviour. The ecological adaption begins by addressing the ontogenic level – the individual’s exposure to an aggressive environment and personal experience with harsh physical punishment, which are two high risk factors for abuse of one’s own children. McInnis-Dittrich (1996) developed the ecological approach for a county of 12,000 inhabitants in the American Appalachian. There are three main differences between STEP and the economical adaptions, which: (a) directly addresses the issue of corporal punishment from the perspective of a parent who has been on the receiving end of such punishment as a child; (b) looks as the parent as an individual in ontogenic, familial, exo- and macro-systems – adults as decision-makers in the learning event (approach to adult education); and (c) reflects the significance of cognitive, affective and psychomotor aspects of adult learning – given the opportunity to recognize how they feel about the ideas presented in the program and the opportunity to practice or apply the concepts.

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STEP	Ecological Adaptation of STEP
Session 1: Understanding children's behaviour and misbehaviour	Session 1: Understanding your own childhood: Behaviour and misbehaviour (ontogenic)
Session 2: Emotions, family life-style issues, and the "good" parents	Session 2: Parenting issues in one's own family of origin: A retrospective on what makes a good parent (familial)
Session 3: Encouragement: Building your child's self-esteem	3: Expectations and encouragement: What does the community expect of you as a parent (exosystem)
4: Communication: How to listen to your child	4: Communication: How do we learn to listen and be heard?
5: Communication: Exploring alternatives and expressing your feelings and ideas to your child	5: Communication: Exploring alternatives and expressing your feelings and ideas to your child
6: Natural and logical consequences: A method of discipline that develops responsibility	6: Alternatives to corporal punishment: Natural and logical consequences
7: Applying natural and logical consequences to other concerns	7: But everyone spanks their child: Dealing with peer criticism (macrosystem)
8: The family meeting	8: The family meeting

Self-reports from participating parents immediately and six-months after the program were extremely positive (McInnis-Dittrich, 1996). McInnis-Dittrich (1996) claim that although the ecological adapted version was developed for a specific needs-based situation of an isolated, rural community, because it uses an ecological model, it is applicable to other high-risk environments.

Opportunity to Fix Mistakes

Self-reflective Grading

Cherepinsky's (2011) intervention of self-reflective grading is a very simple and easily implemented way of giving students opportunities to fix their mistakes and encouraging them to become more reflective of their work. Giving students the opportunity to review their tests and exams and correct their errors for partial or full credit back can be implemented in nearly any school setting. Although Cherepinsky (2011) tested this intervention in a university class, it could also be effective in high school classes. The intervention can be tailored to the subject, grade level, students, and teacher preference. Cherepinsky's (2011) method is as follows:

- Exams are initially returned to students with each question marked with either a checkmark or an "x." An "x" indicates that there was some mistake in the solution; this could be a serious mistake or something minor, such as a typo or spelling mistake.
- Students then receive detailed instructions on what to do to get points back (see an example in Appendix A). Students have a week to go over their exams, open book, and resubmit their original exam with a set of corrections on a separate piece of paper.

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- For each error, they must find all the errors made, decide whether it was major or minor and explain why, and explain how to fix it.
- For each error correctly identified, classified, and fixed, the students gets back half the credit lost due to making the error in the first place
- To prevent cheating by writing on the exam and claiming it was what they wrote originally, the teacher makes copies of some random pages from the exams and tells the students that they have done so. Students are also encouraged to use a different coloured pen for their corrections to prevent unintentionally correcting on the exam instead of a separate paper.
- Students are encouraged to work together on the exam

The Making Amends System

Erb and Erb's (2018) Making Amends System was originally created for third-grade classrooms; however, it likely could be adapted to other age groups. For their grade-three classes, Erb and Erb (2018) used children's literature focused on character development and the impact of actions on others to guide their discussions of the concept of making amends. The literature list included: *Have you Filled a Bucket Today*? By Carol McCloud*; *Hurty Feelings* by Helen Lester; *Just Kidding* by Trudy Ludiwg; *Pinduli* by Janell Cannon; *The Invisible Boy* by Trudy Ludwig; *Spaghetti in a Hot Dog Bun* by Maria Dismody; *Chicken Sunda*y by Patricia Polacco; *What if Everybody did That?* By Ellen Javernick; *The Potato Chip Champ* by Maria Dismondy; *My Secret Bully* by Trudy Ludwig; *The Sandwich Swap* by Her Majesty Queen Rania Al Abdullah. *Have you Filled a Bucket Today*? By Carol McCloud was used as the main example of how to make amends by giving students the idea of an imaginary bucket each person carries, which is filled with joy from positive actions and emptied by mean behaviour. Teachers introduced the concept of "amends" during morning meetings, which start the day in every classroom at the elementary school; teachers and students engaged in extensive conversation, modeling, and role-playing related to different types of amends.

In each third-grade classroom and specialist subject classroom, a "Making Amends" binder was placed; these binders contained a title and picture of the action on the left hand page and a sentence frame on each of the five right-hand pages. Examples of these sentence frames include:

- Verbal Apology: I am sorry that I _____. It is wrong because _____. Next time I will ____. Is there anything that I can do now?
- Apology Letter: Dear ____, I am sorry that I ____. It is wrong because _____. Next time I will ____. Sincerely, _____
- Help the Classroom: I would like to make amends to our class for _____ by ______ in the classroom. I think this is an appropriate way to make amends because it will ____.
- Show Appreciation: I would like to make amends for _____. I will show my appreciation to _____ (person) by _____ (action).

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- I create: I would like to make amends for ______ by ____________. I think this is an appropriate way to make amends because it will ______.

Teachers emphasized how to match the amends to the harm that was caused. For example, the verbal apology or apology letter is best if a student said or did something that upset someone, such as putting them down; the students could make amends by speaking or writing an apology and finding out what to do to make it better. If a student disturbed the class or damaged classroom property, the student could perform a job that helps the classroom community, such as sweeping the floor or sharpening pencils. If a student hurt a friend's or adult's feelings by acting out in class, the student could make amends by expressing their appreciation of something they do.

In the second year of implementation, teachers expanded the system by creating a bulletin board and posters with graphics and examples to assist students in choosing when and why to apply the "Making Amends" sentence frames from the binder using the language from *Have you Filled a Bucket Today*? By Carol McCloud. An example of the bulletin board visual:

Making Amends
We all make mistakes and dip from someone's bucket sometimes.
Making amends is a way to fill their bucket back up!
When you fill someone else's bucket, your bucket fills up, too!
Bucket filling is showing kindness and respect for others.
Bucket dipping is being mean to others on purpose (Erb & Erb, 2018, p. 99).

Erb and Erb (2018) reported that the Making Amends System was very effective for teaching students to respond to their misbehaviour with a positive action, resolve conflicts, understand how their actions affect others, and develop skills of self-awareness, empathy, and self-regulation. However, Erb and Erb (2018) also note that this approach was not effective for the small number of students with individualized behaviour plans and that more research needs to be done to test its applicability and effectiveness.

Error Management Training

Error Management Training (EMT) is a method of instruction that utilizes errors as learning opportunities. It was been shown to improve self-regulatory skills, such as reducing negative emotional reactions to mistakes and setbacks and improving metacognitive activities of planning, monitoring, and evaluating one's progress during a task (Keith & Frese, 2005). It has also been sown to improve task performance compared to other training methods and performance on tasks not covered during training (Heimbeck et al., 2003; Keith & Frese, 2008). In early studies, EMT was used to teach software skills (e.g., Frese et al., 1991), but has since been shown effective with older adults (Chillarege et al., 2003), health professionals (King et al., 2013), and pilots (Koglbauer, 2009). EMT's two main components are active exploration and error encouragement.

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Active exploration – trainees are given only minimal guidance and encouraged to actively explore and experiment on their own (Kieth & Frese, 2008). This is a learning-by-doing approach, similar to exploration learning. EMT is based in action theory, which suggests that action-orientated mental models are the basis of work-related actions and knowledge and as such and that these mental models are acquired by actively dealing with the subject matter (Keith & Frese, 2008). In this way of thinking, errors are important feedback mechanisms that indicate where one's mental model is not adequately developed and needs further attention.

Error encouragement – participants are given error management instructions telling them to expect errors and highlighting the positive informational feedback of errors for learning (Keith & Frese, 2008). EMT argues that developing an error tolerant attitude is necessary to maximizing the informational value of mistakes (Keith & Frese, 2008). Error management instructions were developed to counter the ineffective, negative emotions that often occurred when people experienced errors (Heimbeck et al., 2003)

Examples of error management instructions:

- "Errors are a natural part of the learning process!"
- "They inform what you are still able to learn!"
- "There is always a way to leave an error situation!"
- "The more errors you make, the more you learn?" (Heimbeck et al., 2003, p. 342)

These instructions are typically given at the beginning of the training, prominently displayed on a poster next to the computer screen and repeated throughout the course of the training.

Restorative Community Service

Thomas and Hunninen (2008) review two examples of restorative justice practices implemented through community service at the local government level: restorative community service in Deschutes County, Oregon and Clark County, Washington.

In 1996, Deschutes County, Oregon passed a resolution adopting the principles of Balanced and Restorative Justice; part of this initiative created the Deschutes County Juvenile Community Justice Department, for them, "Restorative Community Service provides juvenile offenders with meaningful opportunities to repair the harm caused by their actions, while making contributes to the communities in which they live (Thomas & Hunninen, 2008, p. 4). Their conception of restorative community service requires the active involvement of both offenders and the community (community institutions and individual community members), as such, the Juvenile Community Justice Department collaborates with business and civic partners to provide meaningful work and service opportunities and projects. These include: working with Working with Habitat for Humanity on building renovation projects; partnering with local law enforcement agencies and paint suppliers on graffiti removal efforts; providing assistance to seniors, disabled, and those needing financial assistance (e.g., construction of wheelchair ramps and bunk beds, snow removal, yard clean-up); participating with the Oregon Department of

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Fish and Wildlife to build bird nesting-boxes; volunteering at the annual domestic violence agency's children's festival; assisting home owners and neighbourhood associations; working with the County Parks and Recreation Department to advance fire fuel reduction efforts; providing services for terminally ill patients in hospice care centres; and delivering firewood to low income families to help heat their homes (Thomas & Hunninen, 2008, p. 5). One feature of Deschutes County's restorative community service program is that the community service hours juvenile offenders work may be converted to cash to repay the victims of juvenile crime (Thomas & Hunninen, 2008), as previously noted, monetary renumeration is a common form of harm reparation in restorative justice practices (Wexler et al., 2019). The Deschutes County Juvenile Community Justice Department also strives to connect youth offenders and community members by recruiting community volunteers to service as mentors to youth offenders, identify community service projects, and supervise and monitor the completion of projects (Thomas & Hunninen, 2008). In Deschutes County, restorative community service provides youth the opportunity to repair the harm they caused to the community, reconnects them with the community, and provides them opportunities to learn job skills, get vocational training, and acquire other valuable life skills.

Clark County, Washington also has a justice system based on the Balanced and Restorative Justice approach. Clark County defines restorative community service as "activities that enable juvenile offenders to demonstrate accountability and use their service as an opportunity to make things right with victims and the community by providing work service that is valued" (Thomas & Hanninen, 2008, p. 5). A key element of Clark County's restorative community service model is that they explicitly state that they will not mandate community service that is unproductive, that is, when offenders are required to provide unpaid services that have no connection to the harm they caused and do not benefit the victim or the community, build relationships between the youth and the community, or build skills (Thomas & Hanninen, 2008). Instead, Clark County provide work service projects including: services for the elderly and low income; environmental enhancement projects; neighbourhood improvement efforts; neighbourhood clean-up days; neighbourhood park improvement projects; Habitat for Humanity building projects; Natural habitat enhancement projects with groups like Friends of Trees; working with food banks and homeless shelters; working with 4-H to grow food for local food banks; and working in senior citizen homes (Thomas & Hanninen, 2008, p. 6). In order for these work service projects to be considered restorative, the activity must represent, even symbolically, an opportunity for the juvenile offender to do something of value that makes amends for the harm that resulted from their actions (Thomas & Hanninen, 2008). Similarly to Deschutes County, Clark County's restorative community service aims to help the youth offender integrate into the community and become a valuable member of the community. This aim is achieved by having offenders work side-by-side with community members so that the community begins to perceive the youth as a contributing member and the youth begins to see themselves as contributors as well. Clark County employs a Restorative Community Service Coordinator to meet with community groups and identify meaningful work

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service projects where juvenile offenders can work directly with volunteers from the community. Clark County aims to prepare the offender for restorative community service through conversations between the youth and juvenile court staff regarding the youth's personal obligation to make things right and the opportunity they have to make amends through community service.

Assessment

Accountability

Unidimensional Scale of Felt Accountability (Hall et al., 2003)

- An 8-item, unidimensional scale
- Hall et al. (2003) reported a reliability of .84, and a Cronbach's alpha of .73
- 7-point response scale: 1=strongly disagree, 7=strongly agree
- Used in:
    - Hall & Ferris' (2011) study of accountability and extra-role behaviour
    - Hall et al.'s (2009) study of accountability and organizational citizenship behaviour
        - In this study, the 8-item measure was reduced to 6 items
- Scale items:
    - I am held accountable for my actions at work
    - Top management hold me accountable for all of my decisions
    - If things don't go the way they should, I will hear about it from top management
    - The success of my immediate work group depends on my successes and failures*
    - I often have to explain why I do certain things at work
    - In the grand scheme of things, my efforts at work are very important*
    - The jobs of many people at work depends on my successes or failures
    - Co-workers, subordinates, and bosses closely scrutinize my efforts at work
- * = items dropped in Hall et al. (2009)

Multidimensional Measure of Felt Accountability (Han & Perry, 2020b; Appendix B)

- Based on Han and Perry's (2020a) concept of felt/individual/employee accountability as multidimensional and containing five theoretical bases: 1) attributability; 2) observability; 3) evaluability; 4) answerability; and 5) consequentiality
- A 15-item measure with 5 factors corresponding to the five theoretical bases
- Validated in a sample of 528 U.S. Public Sector workers (61.7% women; 51.9% Public-Government, 48.1% Public-Non-profit; 52.4% aged 13-24 years, 47% aged 35-64 years, 0.60% aged 65 years or older).
- The five dimensions exhibited discriminant and convergent validity and the measure fit a multidimensional model of employee accountability.

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- All 15 theoretical paths between the five first-order factors and items produced valid (range of 0.67–0.95) and reliable (range of 0.45–0.89) scores; and all 5 paths between the second-order factor (i.e., employee accountability) and the five first-order factors yielded valid (range of 0.56–0.87) and reliable (range of 0.31–0.76) scores.

Reasonable Consequences

Vignettes of parent-child interactions in a rule breaking situation

- Mageau et al. (2018) used vignettes to measure how effective and acceptable children perceived either logical consequences or mild punishment to be. This method has also been used with teenagers (Robichaud & Mageau, 2020; Robichaud et al., 2020a), and to assess to what degree youth anticipated internalization or autonomous reasons for complying with the presented discipline strategy (Robichaud et al., 2020a) and how much anger or empathy the discipline strategy would elicit (Robichaud et al., 2020b).
- With the vignette method, multiple variables can be manipulated:
  - The age and gender of the child
  - The gender of the parent
  - The social domain in which the transgression occurs – theorists have identified four major social domains which we use to organize behaviour: conventional, as in contextually determined norms (e.g., the child refuses to do their homework); prudential, concerning the safety/ welfare of the child (e.g., the child refuses to brush their teeth); moral, concerning another's rights/ welfare (e.g., the child calls their siblings names); and personal issues and preferences (the child has friends the parent does not approve of). Research shows that parental authority is accepted and seen as legitimate in all domains except personal, and that as adolescents mature, they begin to see more of their behaviours as under the personal domain (Robichaud & Mageau, 2020).
  - The communication style of the parent – either autonomy-supportive (AS) or controlling (CTL)
  - The discipline strategy used to address the misbehaviour: logical consequences, where parents respond in a way that addresses the problem created by the child's misbehaviour and lets the child experience the consequences of their behaviour; mild punishment, where the parent punished the child by taking away a privilege that was unrelated to the misbehaviour; or no discipline style, where the parent, where the parent repeated the rule again after the child have been ignoring their request for some time.

Resilience Research Centre (RRC) Suggested Survey

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How well do the followings statements describe you?	Does not describe me at all	Does not describe me well	Kind of describes me	Describes me well	Describes me very well
When others tell me what I did was wrong, it makes me think about my actions.	1	2	3	4	5
Whenever I do something and it doesn't go well, I think about what I could have done to make things better.	1	2	3	4	5
I think about my actions when I know what I am doing could affect other people.	1	2	3	4	5

Reasonable Consequences for One's Actions

Awareness of Consequences Scale (Schwartz, 1968; 1974)

- A projective story-completion questionnaire which presents participants with six incidents in which the main character faces a decision that has consequences for the welfare of others. Following each incident, participants are asked what thoughts and feelings might be running through the main character's mind as they try and decide what to do; then, after learning that the main character ahs acted in a way that is harmful to another, participants are asked about the main character's ensuing thoughts and feelings.
- Responses are coded on a 5-point scale for the extent to which the actor is aware of the potential consequences of their behaviour on the welfare of others. Scores of 0 indicate no awareness and a score of 4 indicates awareness of long-range consequences, adopting the perspective of others and reflecting on consequences from their viewpoint.
- Schwartz (1968) found that stories wherein the main character interacts with their peers better reflect personal orientations of the participants than stories where the main character is differentiated from those they may affect by rank or role. In Schwartz (1974), all six incidents involved decisions that would affect the main characters' peers.
- Example of a question: "Instructions: This is a test of your understanding of the way people go about making the choices they do. On the following pages are a number of incidents about people your own age. In each incident the description ends at a point where the main character is faced with a decision. Your task is to describe how he goes about making this decision: the kinds of thoughts and feelings he has as he debates with himself about what to do. Imagine what it would be like to be in the position of the main character. Then write out the internal conversation he might have in his mind. . . . You might try to write in the first person. Don't tell me what he does; tell me what the process of thinking is like. Incident: When the alarm rang at 7:30 on Saturday morning,

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Bob rolled over and shut it off with a groan. He had been up very late and had no desire to climb out of bed into the cold air now. Then he remembered that his friends were scheduled to pick him up at 8:00 a.m. They were planning to spend the day skiing, and had agreed to leave early to beat the traffic and the crowds. Bob had looked forward to the day. He knew that if he didn't get going immediately, he would keep everyone waiting. Lying in bed, Bob struggled to get up. Questions: (1) What thoughts and feelings might be going through Bob's mind as he debates with himself about what to do now? (2) Assume that Bob didn't get up until eight o'clock. How did he feel about what he did? What thoughts and emotions did he experience?" For a complete presentation of the instruments, see Schwartz, 1967" (Scwartz, 1968, p. 360)

- In their study on Schwartz's concepts and specific prosocial behaviour, De Groot and Steg (2009) create 5 items for each specific behaviour (e.g. donating blood, environmentally friendly behaviours) to assess the extent to which participants were away of the negative consequences of them not acting prosocially.

Opportunity to Fix Mistakes

Measure of Mistake Tolerance in Organizations (Weinzimmer and Enkel, 2017)

- This is a 5-item, unidimensional measure with a 5-point response scale from 1 = strongly disagree to 5 = strongly agree
- It is designed to assess how tolerant workplace environments are of mistakes
- Weinzimmer and Enkel's (2017) study of a mid-western service organization (n = 445 respondents), the measure had an alpha coefficient of 0.81. In their second study of 43 profit centres at a mid-sized service organization (n = 417 respondents), the measure had an alpha coefficient of -.84
- Items:
  - "Managers are generally accepting of mistakes"
  - "Employees are allowed to take risks"
  - "Managers are tolerant of mistakes when employees pursue innovative solutions"
  - "The company understands that making mistakes is part of taking risk"
  - "Risk taking is encouraged without fear of punishment"

The Error Orientation Questionnaire (EOQ; Ryboqiak et al., 1999; Appendix C)

- This measure assesses how one thinks about and copes with errors at work. The primary appraisal of errors is related to how negatively they are perceived and the degree to which one anticipates they will happen. Secondary appraisal refers to coping with errors and the coping strategies one uses in the face of errors, such as covering up that an error has occurred, communicating about it, actively dealing with it, and learning from it.

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- This is a 37-item measure, with a 7-point Likert response scale
- This measure has six subscales:
    - Error Competence – active knowledge for immediate recovery from errors and reduction in error consequences. It relates to self-efficacy, to action-orientation after failure, need for achievement, and quite highly to initiative. It also highly correlates with the Learning from Errors subscale (*r* = 0.63) (in the German sample).
    - Learning from Errors – the ability to prevent errors in the long term by learning from them, planning, and changing work processes. There are correlations with self-efficacy, qualification, plan-orientation, need for achievement, readiness to change, and initiative. It also highly correlates with the Error Competence subscale (*r* = 0.63) (German sample).
    - Error Risk Taking – the result of an achievement-oriented attitude which requires flexibility and taking responsibility. There are positive relations to need for achievement, qualification, readiness for change and initiative, as well as a negative relation to control rejection.
    - Error Strain – characterized by a generalized fear of committing errors and by negative emotional reactions. It correlated negatively with self-efficacy, self-esteem, and initiative and positively with control rejection, psychosomatic complaints, depression, and negative affectivity.
    - Error Anticipation – pessimistic and negatively tuned but at the same time it may be a realistic orientation. It correlated positively with negative affectivity and error strain, and negatively with optimism
    - Covering up Errors – mainly the strategy of a non-self-assured person and may also be an adaptation to error-sensitive conditions at work, for example, job uncertainty. It relates to low self-esteem, negative affectivity, and high control rejection, and little initiative, but also to career stress and job uncertainty.
- This measure was developed in German, Dutch, and English
    - It was developed and validated in a German sample of 478 people aged 18 to 65
    - The measure was then validated with 160 Dutch university students (76 men and 84 women; aged 19 to 55, mean age = 26.5) in both English and Dutch
- The English version has alpha coefficients as follows: Error Competence = 0.56; Learning from Errors = 0.89; Error Risk Taking = 0.74; Error Strain = 0.79; Error Anticipation = 0.73; Covering up Errors = 0.78; Error Communication = 0.67; Thinking about Errors = 0.83.
- This measure was used in Harteis et al.'s (2008) study of employee and manager attitudes towards mistakes in the workplace. Harteis et al. (2008) found 3 subfactors of the EOQ using factor analysis:
    - Appraisal of mistakes (9 items; *α* = 0.80)
    - Strategies to learn from mistakes (5 items; *α* = 0.75)

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- Negative emotions regarding mistakes (6 items; $a = 0.68$)

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Appendix A: Cherepinsky (2011) Self-reflective Grading Student Directions

Marked exams were returned in class on Wednesday. An “X” next to a problem indicates there was some error in the solution. It may be a serious mistake, a question left unanswered, an unjustified claim, or something very minor in the mostly correct solution, such as a typo in the explanation. (If the only thing wrong was clearly a typo or an incorrect notation, this was indicated with a check mark with a small slash through it; otherwise, something else is wrong as well.) Note also that there may be more than one error per problem, so check your entire solution to make sure you found them all. Also, don’t be discouraged if you didn’t get any of the problems completely right: it may just mean you made a minor error in each one.

Corrections (on separate sheets of paper - do not write on the original set of exam solutions!): For each problem marked with an “X”, you must 1) find the error(s); and for each error, 2) decide whether it is major or minor (and explain why); and 3) explain how to fix it (for example, you may do this by writing out a correct solution and indicating where you went wrong).

Your corrections *and* the original exams will be collected back on Wednesday, April 25. Both of these will be graded; for each error you correctly identify, classify, and fix, you will get back half the points lost due to making it in the first place. This applies to the bonus problem as well; if you didn’t get to it during the exam, you can submit a solution with your corrections.

You are welcome to work together, use your books and notes, and come ask me for help if you can’t figure out what you did wrong. Note, however, that each of you must hand in individual corrections to your exam.

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Appendix B: Multidimensional Scale of Employee Accountability

Han and Perry (2020b)

Attributability:

1. What I do is noticed by others in my organization.
2. If I make a mistake, I will be caught.
3. I am constantly watched to see if I follow my organization's policies and procedures.
   Observability:
4. Anyone outside my organization can tell whether I'm doing well in my job.
5. My errors can be easily spotted outside my organization.
6. People outside my organization are interested in my job performance.
   Evaluability:
7. The outcomes of my work are rigorously evaluated.
8. My work efforts are rigorously evaluated.
9. I expect to receive frequent feedback from my supervisor.
   Answerability
10. I could not easily get away with making a false statement to justify my performance.
11. I am always required to follow strict organizational policies or procedures.
12. I am not allowed to make excuses to avoid blame in my organizations.
    Consequentiality
13. If I perform well, I will be rewarded.
14. Good effort on my part will ultimately be rewarded.
15. If I do my job well, my organization will benefit from it.

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Appendix C: The Error Orientation Questionnaire

Rybowiak et al. (1999)

To what extent does this apply to you:

1 = Not at all
2 = A bit
3 = Neither a bit, nor a lot
4 = A lot
5 = Totally

Error Competence:

1. When I make a mistake, I know immediately how to correct it
2. When I do something wrong at work, I correct it immediately
3. If it is at all possible to correct a mistake, then I usually know how to go about it
4. I don't let go of the goal, although I may make mistakes

Learning from Errors

5. Mistakes assist me to improve my work
6. Mistakes provide useful information for me to carry out my work
7. My mistakes help me to improve my work
8. My mistakes have helped me to improve my work

Error Risk Taking

9. If one wants to achieve at work, on has to risk making mistakes
10. It is better to take the risk of making mistakes than to 'sit on one's behind'
11. To get on with my work, I gladly put up with things that can go wrong
12. I'd prefer to err than to do nothing at all

Error Strain

13. I find it stressful when I err
14. I am often afraid of making mistakes
15. I feel embarrassed when I make an error
16. If I make a mistake at work, I 'lose my cool' and become angry
17. While working I am concerned that I could do something wrong

Error Anticipation

18. In carrying out my task, the likelihood of errors is high
19. Whenever I start some piece of work, I am aware that mistakes occur
20. Most of the time I am not astonished about my mistakes because I expected them
21. I anticipate mistakes happening in my work
22. I expect that something will go wrong from time to time

Covering up Errors

23. Why mention a mistake when it isn't obvious?
24. It is disadvantageous to make one's mistakes public

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25. I do not find it useful to discuss my mistakes
26. It can be useful to cover up mistakes
27. I would rather keep my mistakes to myself
28. Employees who admit to their errors make a big mistake

Error Communication

29. When I make a mistake at work, I tell others about it in order that they do not make the same mistake
30. If I cannot rectify an error by myself, I turn to my colleagues
31. If I cannot manage to correct a mistake, I can rely on others
32. When I have done something wrong, I ask others how I should do it better

Thinking about Errors

33. After I make a mistake, I think about how it came about
34. I often think, 'How could I have prevented this?'
35. If something goes wrong at work, I think it over carefully
36. After a mistake has happened, I think long and hard about how to correct it
37. When I mistake occurs, I analyse it thoroughly

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