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What is bullying? A theoretical redefinition

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ABSTRACT

Bullying is a complex and heterogeneous phenomenon that directly affects hundreds of millions of people each year. The importance of bullying has led to research in the last two decades that has produced hundreds, if not thousands, of papers on the topic. In large part this research was stimulated by a definition provided by Olweus in 1993. That definition has proven to be tremendously useful as a starting point for research, but it was created in the absence of recent empirical and theoretical evidence. We propose an updated definition that is explicitly grounded in a unifying theory that encompasses ecological and evolutionary contexts: "bullying is aggressive goal-directed behavior that harms another individual within the context of a power imbalance". We follow this definition with an examination of the theoretical and empirical support for each of its three elements (goal-directedness, power imbalance, and harm). We suggest that bullying measures should be based on assessments of these three elements of bullying. Our redefinition also emphasizes the importance of considering and altering the cost-benefit analysis of bullying as a cornerstone for successful interventions. Finally we address several specific potential challenges to the definition.

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Introduction

Bullying is a centuries old term that, according to Merriam-Webster (2013), was first coined from German in 1538 and means one of three things: a fine chap, a hired ruffian, or a blustering brow-

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beating person – especially one who is cruel to others who are weaker. The third definition is now most commonly used. However, there are some discrepancies between this popular dictionary definition and the definitions used by researchers. Within research circles, the most familiar and widely cited (4900 times) definition of bullying comes from Dan Olweus, originally proposed in the 1970s and reiterated in the now classic book “Bullying in School” (1993). He defines bullying as: “A student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students.” He then further clarifies the components of this definition:

“It is a negative action when someone intentionally inflicts injury or discomfort upon another, basically what is implied in the definition of aggressive behavior. Negative actions can be carried out by physical contact, by words, or in other ways, such as making faces or mean gestures, and intentional exclusion from a group. In order to use the term bullying, there should also be an imbalance in strength (an asymmetric power relationship): the student who is exposed to the negative actions has difficulty defending him-/herself and is somewhat helpless against the student or students who harass. In my definition, the phenomenon of bullying is thus characterized by the following criteria: it is aggressive behavior or *intentional* ‘harm doing,’ which is carried out *repeatedly and over time* in an interpersonal relationship characterized by an imbalance of power” (Olweus, 1993, pp. 8–9; italics ours).

Decades later, this remains the predominant definition in bullying research, with Olweus recently reiterating its key components (Olweus, 2013). This definition has provided the foundation for the Olweus Bullying Victimization Questionnaire, which has been used to measure bullying among hundreds of thousands of adolescents across the world (Currie et al., 2012). It has also inspired numerous other bullying measures (e.g., Book, Volk, & Hosker, 2012; Craig & Pepler, 1997; Salmivalli, Lagerspetz, Björkqvist, Österman, & Kaukiainen, 1996). There are two key differences that emerge between this definition and the one from Merriam-Webster: the idea of intentionality and the repetitive nature of the behavior. In themselves, these discrepancies may be problematic to the extent that they can blur the criteria used implicitly by respondents completing self-report bullying questionnaires (Sawyer, Bradshaw, & O’Brennan, 2008; Vaillancourt et al., 2008). However, these discrepancies may in fact reflect deeper underlying uncertainty about the conceptualization and measurement of bullying (Liu & Graves, 2011). Dozens of bullying researchers attending a recent Society for Research on Child Development symposium titled, “40 Years of Bullying Research: What We Know,” came to a general consensus that there is still no adequate definition of bullying (Hymel, Swearer, McDougall, Espelage, & Bradshaw, 2013, April). This is an alarming and surprising statement given the amount of research generated on bullying over the last two decades (Berger, 2007). If we do not yet have an adequate and uniformly applied definition of bullying, can we properly move forward in understanding and preventing the phenomenon (Aalsma & Brown, 2008; Hanish et al., 2013; Nansel & Overpeck, 2003; Pepler & Craig, 2009)?

One challenge has been reconciling emerging research with the traditional definition of bullying. For example, although the requirement that bullying must be repeated frequently has long been incorporated into both theoretical definitions and assessment measures (Berger, 2007; Crothers & Levinson, 2004), recent advances in research raise the question of whether it is a necessary feature of bullying. Investigators have recently noted that a single incident of cyber-bullying may be very harmful to the victim, given that the posting of embarrassing or hurtful material to the Internet may be accessed by many people for a long period of time (Slonje & Smith, 2008). Indeed, Olweus (2013) himself views this issue as needing clarification and requiring further research.

Confusion between public and academic definitions and confusion among academics suggest that it would be beneficial to re-examine the general definition of bullying, by integrating recent theory and empirical data (Barboza et al., 2009; Hong & Espelage, 2012; Volk, Camilleri, Dane, & Marini, 2012a, 2012b). We therefore propose the following new theoretical definition of bullying: *Bullying is aggressive goal-directed behavior that harms another individual within the context of a power imbalance.* While we draw primarily upon adolescent research, our definition is intended to be equally applicable to bullying in both younger children and in adults. In the present paper, we examine empirical and theoretical support for the three major components of the proposed definition: (i) goal-directedness, (ii)

power imbalance, and (iii) harm. Beyond establishing a definition based on theoretical and empirical foundations, we also wish to elucidate some aspects of how this definition can be applied to measurement and interventions (Nansel & Overpeck, 2003).

Goal-directedness

Olweus's (1993) definition states that bullying is intentional as opposed to accidental harm-doing, a position with which investigators of bullying generally agree (Greene, 2000), and which is consistent with the general definition of aggression (Dodge, Coie, & Lynam, 2006). However, it may be beneficial to define bullying more specifically as goal-directed behavior, to be consistent with theory and empirical research in the bullying literature, and because the greater specificity may afford theoretical, methodological and applied benefits. To begin with, given that goals are a reflection of internal motivations and desires (conscious or not), the pursuit of goals is in fact a reflection of intentionality. Assessing the function or goals of bullying circumvents issues and concerns related to parsing out the degree to which a behavior is consciously intended (Kahneman, 2011) as opposed to accidental, by providing an explicit measurement of the actor's objective. This strategy has been used in the general aggression literature to explicitly assess whether respondents use proactive aggression to achieve goals such as power, popularity, and instrumental outcomes (Marsee et al., 2011).

Emphasizing the goal-directed nature of bullying clarifies the distinction between bullying and aggression by explicitly linking it with proactive rather than reactive aggression. Investigators typically have described bullying as having the characteristics of proactive or instrumental aggression insofar as it is unprovoked, premeditated and goal-oriented (Olweus, 1993, 2013; Salmivalli, 2010; Sutton, Smith, & Swettenham, 1999). In contrast, reactive aggression has been conceptualized as a provoked, impulsive, defensive, and emotional response triggered by a frustrating or threatening event, which importantly, is not a consciously goal-directed behavior (Berkowitz, 1993; Blair, 2010; Hubbard et al., 2010; Vitaro et al., 2006). Consistent with this theoretical perspective, empirical research that accounts for the overlap between proactive and reactive aggression has shown that bullying is more strongly and consistently associated with proactive aggression (Camodeca & Goossens, 2005; Fandrem, Strohmeier, & Roland, 2009; Fossati et al., 2009; Roland & Idsoe, 2001; Salmivalli & Nieminen, 2002; Sijtsema, Veenstra, Lindenberg, & Salmivalli, 2009), though in some studies it has been linked to both aggressive functions (Camodeca, Goossens, Terwogt, & Schuengel, 2002). Overall, these data clearly indicate that individuals who bully have a propensity to use aggression in pursuit of instrumental goals, supporting the proposition that bullying should be considered goal-directed behavior. This does not mean that bullies do not use reactive aggression when provoked; only that aggressive behavior must have an instrumental or proactive function to be classified as bullying. Thus, a major conceptual benefit to defining bullying as goal-directed behavior is that this characterization enables researchers to make a clear distinction between bullying and accidental or reactive aggression. For example, an impulsive child with low effortful control who responds automatically and violently to peer teasing is engaging in reactive aggression rather than bullying, regardless of the existing power balance.

Evolutionary theory and evidence further supports the construal of bullying as a goal-directed behavior, insofar as bullying is associated with adaptive outcomes relating to reputation (i.e., social dominance), resources, and reproduction (Volk et al., 2012b). A functional, evolutionary perspective elucidates the major functions of bullying by suggesting goals that were adaptive in the evolutionary past and remain so today (Volk et al., 2012b). An evolutionary approach to aggression in general has proven highly informative (e.g., Daly & Wilson, 1988; Hawley, 1999; Pinker, 2011), and it may be useful to adopt a similar approach of studying the specific goals or functions of bullying (Marsee et al., 2011).

Reputation (Social dominance)

Reputation is the most commonly cited benefit of bullying, particularly as it relates to individual or groups navigating dominance hierarchies (Berger, 2007; Kolbert & Crothers, 2003; Pellegrini, 2001; Salmivalli, 2010). With regard to the latter, engaging in bullying can be a way of promoting in-group solidarity to increase success in comparison with other groups. We see this dynamic in reports from individuals who join in on bullying because of a desire to not be left out, or to prove their allegiance

and loyalty to a specific individual who is an enemy of the victim (Bazelon, 2013; Garandeau & Cillessen, 2006). At the individual level, this may explain the behavior of some bullying bystanders or assistants who desire membership in a powerful group (Salmivalli, 2010). At the group level, bullying for social dominance can become an in- versus out-group exercise where the goal is to reinforce membership within a desired group and to harm the welfare of members of competing groups (Asch, 1956; Tajfel, 1982). Racial, religious, or ethnic forms of bullying (Volk, Craig, Boyce, & King, 2006) may involve group-level conflict in service in dominance goals.

With regard to individuals achieving social dominance, bullies have been found to have higher levels of peer-reported dominance and perceived popularity, despite having lower ratings of likeability (Caravita, Di Blasio, & Salmivalli, 2010; de Bruyn, Cillessen, & Wissinck, 2010; Estell, Farmer, & Cairns, 2007; Reijntjes et al., 2013; Vaillancourt, Hymel, & McDougall, 2003; Zimmer-Gembeck, Geiger, & Crick, 2005). Bullying may also focus on sabotaging the reputation of more closely matched opponents, such as when an individual attacks the sexual reputation of another in order to boost their own status relative to the targeted victim, or when an individual targets a potentially threatening weaker individual who is nevertheless successfully climbing the social ladder (Volk et al., 2012b). The attainment of dominance and social status is an important objective because it is an indirect way of obtaining tangible benefits such as resources or dating/reproduction opportunities (Volk et al., 2012a).

Resources

Studies have shown that bullying may be used to acquire non-social resources that are of contextual value to individual bullies, such as food, desired objects, and wealth. This view is similar to, but more specific than, the Resource Control Theory that Hawley (1999) uses to explain general aggression in children. For example, under conditions of extreme food scarcity, bullying is often used as a means to obtain food, which in turn can promote an individual's survival. Such behavior has been observed among adolescents and adults in groups of displaced hunter-gatherers (Turnbull, 1972), in prison camps (Harden, 2012), and in cases in which stronger individuals or gangs take food from charitable food distribution networks (Natsios, 1996). Fortunately, such survival-based goals are rare in most countries, although they still persist at some level among those who are economically disadvantaged (Harden, 2012; Natsios, 1996). That said, bullying for resources not related to survival still persists in modern societies.

One common example in contemporary societies is fighting over toys, electronics, and/or privileges, which often occurs among siblings (Raffaelli, 1992). The power imbalance inherent in most sibling relationships means that the older sibling often bullies the younger sibling. This important aspect of bullying is underreported and under-investigated (Skinner & Kowalski, 2013). There is no evidence that bullying one's siblings translates into greater peer status, so sibling bullying appears to be specifically about controlling familial resources (Skinner & Kowalski, 2013; Tucker, Finkelhor, Turner, & Shattuck, 2013). While siblings may bully for social dominance within the family, sibling bullies tend to seek more concrete resources than do those involved in most forms of peer bullying (Salmon, 2012).

Modern competitive zero-sum environments are also arenas for bullying over resources. Bullying is a well-known phenomenon in a variety of professional schools in which students compete with other students for grades, scholarships, and future jobs, outcomes that are independent of general social popularity or dominance (Flanagan, 2008). For example, a medical student who actively tries to sabotage the reputation, performance, or standing of a weaker student may be bullying for a specific resource (e.g., preferred residency) rather than popularity or social dominance. The same may be true for some academic proceedings in which more powerful, senior, or prominent academics deliberately impose unfair costs on other academics to promote their own research agendas (Frazier, 2011; Maestripieri, 2012). There is also evidence, at least for adolescent girls, that competitive sports participation is associated with higher rates of bullying and victimization (Volk & Lagzdins, 2009). This may be caused in part by athletes being motivated to bully beyond the limits of normal athletic competition in order to obtain a coveted scholarship or spot on a team.

Thus, the above examples illustrate that bullying may be used to obtain concrete resources (e.g., lunch money), independent of benefits such as increased popularity that rely on the oft-discussed bullying audience and the (in)actions of bystanders (Kolbert & Crothers, 2003; Salmivalli, Kärnä, & Poskiparta,

2011). Furthermore, contrary to some perspectives (e.g., Griffin & Gross, 2004), it also suggests that the scope of bullying should not be restricted to that which occurs within familiar social groups. Exploiting a power advantage, due to greater strength or numbers, to obtain desired resources from strangers is a valid example of bullying.

Reproduction

The third proposed goal of bullying – reproduction (as a short-hand for genetic propagation) – is the ultimate biological Darwinian goal. If bullying provides an evolutionary advantage, it should be associated with reproductive gains. In this vein, adolescent bullying correlates with an increase in the number of dating partners as well as more frequent and earlier dating (Connolly, Pepler, Craig, & Taradash, 2000). Bullying is also correlated with self-reports of earlier age of first intercourse, greater number of sexual partners, and greater interest in sexual activity (Volk, Dane, Marini, & Vaillancourt, submitted). Furthermore, bullying and dating aggression share many of the same risk factors, and the two are often co-morbid (Basile, Espelage, Rivers, McMahon, & Simon, 2009; Pepler, Craig, Connolly, & Henderson, 2001). If similar in function to general aggression, the benefits of these intra-relationship bullying behaviors can include ensuring partner fidelity, more frequent sexual access, and/or a greater investment of resources to benefit the bully (or to the bully's offspring – think of the behavior of the wicked stepmother in many fairy tales; Archer, 2000; Camilleri, 2012; Campbell & Cross, 2012). Taken together, this evidence demonstrates that reproductive success can be an important goal of bullying. Indeed, there is a broad literature regarding the role of bullying within romantic dyads indicating that its purpose is to make a potential or current partner behave as the bully wishes (Campbell & Cross, 2012; Pellegrini, 2001). These dyadic conflicts are sometimes public, but are quite often deliberately kept private (Wekerle & Wolfe, 1999).

Overall then, there is clear evidence that bullying is not only intentional harm-doing, but also goal-directed behavior that can serve to meet one or more adaptive goals (Rigby, 2012; Salmivalli, 2010; Volk et al., 2012b). Beyond explaining its theoretical function, defining bullying in this way highlights that it involves using force, coercion, and aggression to pursue goals instead of employing more prosocial strategies such as persuasion, cooperation, helping and reciprocity (Hawley, 1999). Although relational forms of bullying such as social exclusion may be facilitated by social skill and social status (e.g., Rose, Swenson, & Waller, 2004; Zimmer-Gembeck et al., 2005), bullying itself is antisocial, as this method of acquiring resources harms the individual with whom one is competing, in contrast to prosocial strategies which are mutually beneficial (e.g., cooperation) or, at least in the short term, beneficial primarily for the recipient of the behavior (e.g., helping).

Finally, defining bullying as goal-directed activity highlights the rewards that drive the behavior, illuminating factors that are likely to increase resistance to anti-bullying interventions. Conceptualizing bullying as a behavior in which the benefits are perceived as outweighing the costs suggests clear objectives for intervention programs – increase the costs and reduce the benefits of bullying, or demonstrate a viable alternative with a more favorable cost–benefit ratio. Several interventions have done so by having adults carefully monitor bullying situations and providing appropriate consequences (e.g., Olweus, 1993), reducing peer support for bullying (e.g., KiVa intervention; Salmivalli et al., 2011), or by providing alternate prosocial paths for bullies to achieve their goals (Ellis, 2013). Many anti-bullying efforts do not explicitly address the goals of bullying, which may partly account for the limited success of those programs (Ttofi & Farrington, 2011).

Imbalance of power

In the previous section, we reviewed theory and evidence indicating that bullying involves proactive rather than reactive aggression, without having addressed the question of what distinguishes bullying from proactive aggression. Whereas the goal-directed nature of bullying distinguishes it from reactive aggression, it is the assessment and measurement of the balance of power between the bully and victim that differentiates it from general proactive aggression.

Conceptually, almost all authors have defined bullying with respect to an imbalance of power, with Olweus (1993) indicating that bullying is “carried out ... in the context of a relationship

characterized by an imbalance of power,” and Pepler et al. (2006) indicate that bullying is a “relationship problem – because it is a form of aggression that unfolds in the context of a relationship in which one child asserts interpersonal power through aggression.” In contrast, in cases in which the balance of power is relatively even (e.g., Faris & Felmlee, 2014), or in which the aggressor is less powerful, the act of harming another person may be considered aggression rather than bullying (Hawley, Stump, & Ratliff, 2011). However, there is some ambiguity within the bullying literature with regard to whether and how an imbalance of power is formally included in bullying measures. In the widely used Revised Olweus Bully-Victim Questionnaire (Solberg & Olweus, 2003) students are provided with a definition of bullying prior to completing global and specific questions about bullying. This definition states that in the case of bullying “it is difficult for the student being bullied to defend him/herself, ... and that it is not bullying when two students of the same strength or power fight.” Measures used by several other investigators assess bullying by providing a similar definition to students completing self-report questionnaires (Konishi et al., 2009; Vaillancourt et al., 2008). Other investigators have modified Olweus’s approach somewhat by asking students how frequently they have done several specific forms of aggressive behavior to “someone who is weaker or less popular than you,” reversing the description to assess victimization (Book et al., 2012). However, some researchers have employed self-report, peer-rating, peer-nomination and observational measures of bullying without specifying in the instructions to respondents or in coding instructions that an imbalance of power must be present (e.g., Craig, Pepler, & Atlas, 2000; Marini, Dane, Bosacki, & YLC-CURA, 2006; Salmivalli et al., 1996). Indeed, Schafer, Werner, and Crick (2002) highlight the absence of a power imbalance in general measures of aggression and victimization as a strength that allows for the detection of potentially harmful aggression between individuals of relatively equal power (e.g., Faris & Felmlee, 2014).

Although these methodological inconsistencies ought to be addressed, it is nevertheless true that bullying can be distinguished from proactive aggression by the fact that it is generally only in the case of the former that an imbalance of power between the bully and victim is considered, both conceptually and methodologically. Measures of aggression tend to focus only on form (what was done; e.g., overt or relational) and/or function (how or why it was done; e.g., reactive or proactive), aspects that pertain to the behavior and motivation of the perpetrator rather than the characteristics of the person against whom the aggression was directed (e.g., Buss & Perry, 1992; Crick & Grotpeter, 1995; Dodge & Coie, 1987; Little, Jones, Henrich, & Hawley, 2003; Marsee et al., 2011; Raine et al., 2006). We conceptualize and measure aggression and bullying in an integrated, ecological manner, not only assessing the form and function of the aggressive behavior, but also incorporating items that capture that balance of power between the antagonists. To illustrate this proposal with an example, the item “threatening others to get what you want” that is used to assess proactive-overt aggression in the Peer Conflict Questionnaire (Marsee et al., 2011), could be modified to (additionally) assess proactive-overt bullying by asking whether the respondent had ever threatened a weaker or less popular peer in order to get what he or she wanted.

Recent research illuminates the importance of distinguishing bullying from proactive aggression with respect to the imbalance of power by showing that there is a different pattern (typically more serious) of negative outcomes for the victim when the measures of bullying explicitly refer to a power imbalance compared with when they do not (Ybarra, Espelage, & Mitchell, 2014). Despite a popular tendency to label bullies as cowards, we believe that bullies’ preference for weaker targets represents an attempt at obtaining an efficient cost versus benefit ratio, as weaker victims allow the bully to meet their goals (benefit) with only a modest chance of effective retaliation (cost). Indeed, bullies appear to deliberately target individuals who are incapable of effective retaliation or garnering peer support (Veenstra, Lindenberg, Munniksmas, & Dijkstra, 2010; Veenstra, Verlinden, Huitsing, Verhulst, & Tiemeier, 2013).

Recognizing a power imbalance is pivotal to developing effective anti-bullying interventions. For example, it provides a rationale for the common recommendation by adults and clinical practitioners that a victim of bullying should resist the bully with an assertive response (e.g., McGinnis, Sprafkin, Gerwaw, & Klein, 2012; Lochman, Powell, Whidby, & Fitzgerald, 2012), and may explain why that is also the most common, and most successful, strategy reported by children (Black, Weinles, & Washington, 2010). By standing up for him or herself the victim increases the cost of the bullying and thus discourages the bully from continuing. Similar logic applies to the advice of telling an adult, whose

punishment of the bully also increases the cost (Pepler & Craig, 2009). Unfortunately, while these suggestions might work at protecting an individual, they do not remove the bully's option of finding an alternate (i.e., without protection) and/or more suitable (i.e., weaker) victim (Veenstra et al., 2013), nor is it always a feasible option for the victim to contact an adult (or, for adult victims, to contact an appropriate authority figure), or to resist. In these cases, considering and addressing the goals of the bully (as well as the attendant costs/benefits) and/or modifying relevant ecological contexts (e.g., teacher/supervisor), are likely to prove more effective (Ttofi & Farrington, 2011).

Having established the centrality of the balance of power to the definition of bullying, we address some conceptual and methodological difficulties that arise when applying this concept to specific aspects or cases of bullying. First, it should be noted that researchers have construed the concept of power broadly, incorporating differences in physical strength as well as social power derived from popularity (O'Connell et al., 1999) or group dynamics (e.g., persecuted ethnic minorities; Volk et al., 2006). While physical differences in power are relatively easy to measure, and do correlate with aggression (Gallup, White, & Gallup, 2007), the same is not always true for cognitive or social power (particularly for observational research). With regard to cognitive power, verbal fluency may facilitate mean teasing of a less articulate victim, whereas social-cognitive abilities may aid in the selection of vulnerable victims or in persuading peers to engage in social exclusion. It does appear that bullies enjoy some cognitive advantages with respect to theory of mind and social-cognitive abilities (Garandeau & Cillessen, 2006; Peterson & Ray, 2006; Sutton et al., 1999). With regard to social power, the inclusion of popularity as an indication of power is borne out empirically by research showing a strong correlation between peer nominations of perceived popularity and measures of leadership ability and power, the latter operationalized as the ability to pressure others into doing things (Vaillancourt et al., 2003). Indeed, the ability to commit relationally aggressive acts such as recruiting classmates to exclude a target peer appears to be facilitated by social status, as children with a high level of popularity have been found to commit more bullying or relationally aggressive acts in the future (Rodkin & Berger, 2008; Rose et al., 2004; Zimmer-Gembeck et al., 2005). The importance of social power is further illustrated by intervention data showing that high levels of popularity appear to inoculate children who bully from the effects of peer-focused anti-bullying programs (Garandeau, Lee, & Salmivalli, 2014). This highlights the importance of considering bullying in the context of power imbalances to distinguish bullying from general proactive aggression.

To address these conceptual complications, judgments about the relative balance of power between a bully and a victim must pertain to the specific circumstances of the bullying incident. Power is not solely a property of relatively stable, individual factors such as the person's size and strength, but also of situational, social, or environmental variables that result in a dynamic ecology that can change the power dynamic (Bronfenbrenner & Morris, 2006; Hong & Espelage, 2012). For example, a physically weaker individual may obtain a weapon, or recruit some friends to gang up on a stronger peer. A power imbalance can also operate over a variety of domains (e.g., physical, cognitive, and/or social) and time periods (e.g., momentary or recurrent).

Thus at a conceptual level, though not necessarily in terms of measurement, differences between bullying and general aggression in terms of physical, cognitive, and/or social power are dimensional rather than categorical. As the power imbalance decreases the behavior increasingly resembles general aggression rather than bullying, and the specific point at which it becomes general aggression and not bullying is probably best determined by the perceptions of the bully or the victim. For example, researchers developing measures can guide respondents to consider various domains of power through the wording of the questionnaire items, referencing physical strength or weakness and popularity, or the idea of the victim being powerless and unable to defend himself or herself. However, the respondent reporting bullying can decide in which instances of aggressive behavior there was a favorable power imbalance, and likewise, raters can judge how frequently they have been the victim of aggressive actions perpetrated by someone they perceived as more powerful and against whom they found it difficult to defend themselves. In this respect, self-report measures have the advantage of asking participants who have been directly involved in incidents of bullying and victimization to judge whether a power imbalance existed, whereas other methodologies, including peer-nomination or observational measures, rely on the potentially incomplete or biased indirect judgments of observers.

Harm

Repetition is a key feature of most current definitions and measures of bullying (Berger, 2007). As previously stated, the original intent of requiring repetition as part of the definition of bullying was to avoid sampling trivial incidents of aggression (Olweus, 1993); in other words, repeated exposure to bullying serves as a proxy for greater harmfulness. This rationale is evident in Olweus's comment that "a single instance of more serious harassment can be regarded as bullying", but bullying "exclud[es] occasional nonserious negative actions that are directed against one student at one time and against another on a different occasion" (Olweus, 1993, p. 9). Embedded in this statement is the crux of a problem that investigators face in operationalizing this component of the bullying definition – the conflation of frequency of bullying or victimization with degree to which it is harmful.

On the one hand, it seems reasonable to assess the frequency with which one carries out or is exposed to bullying, given that the frequency of bullying impacts the pattern and harmfulness of related outcomes (Ybarra et al., 2014). However, this aspect of the definition presents some conceptual and methodological challenges. In particular, as with a power imbalance, there is some inconsistency and ambiguity regarding the actual degree of repetition required for an incident to be classified as bullying (Volk et al., 2006). Olweus classified children as bullies if they reported two to three bullying incidents a week (Solberg & Olweus, 2003), Volk and colleagues used a criteria of once a week (Volk et al., 2006), Craig and Pepler required two or more incidents of bullying within an observational period (Craig & Pepler, 1997), while Salmivalli et al. (1996) considered the frequency of a student's bullying relative to the class mean. Although the label of bully has been applied inconsistently across research groups conducting person-centered analyses of bullying, this is more of a methodological than a conceptual problem, which could be solved by adopting an empirically-based standard threshold or cut-off above which a research participant would be classified as a bully or victim. This is the case in the aggression literature, in which a commonly used threshold is a score one standard deviation above the mean (e.g., Crick & Grotpeter, 1995).

A potentially more serious difficulty that has both conceptual and methodological implications is reconciling low frequency but highly harmful examples of bullying and victimization with the definitional requirement that bullying must be repeated. This is a problem because there is evidence that single incidents of bullying can be harmful (Olweus, 2013). Studies of cyber-bullying have shown that a single act of bullying such as posting embarrassing information or pictures online can be exceedingly harmful to the victim, in part because the material may be accessed by a large audience over a long, indefinite period of time (DeHue, Bolman, & Völlink, 2008). Real-life cases further support this point. For example, Tyler Clementi committed suicide after his homosexuality was exposed in a single incident of cyberbullying (Parker, 2012). In a tragic example of offline bullying, Myles Neuts was believed to have been bullied to accidental death in the course of a single incident by two stronger boys who had not previously targeted him (QMI Agency, 2013). In accordance with the cut-offs for classifying bullying and victimization noted above, some of which involve frequencies exceeding once per week (Solberg & Olweus, 2003; Volk et al., 2006), one-time or occasional (e.g., two or three times per year) victims of cyber-bullying would not be classified as victims for the purposes of these studies, such that the harmfulness of this exposure could not be addressed.

We recommend disentangling the harmfulness of bullying from its frequency by developing measures of bullying and victimization that include explicit and direct indicators of bullying intensity and perceived harm. We believe that harmfulness of bullying is the product of both the frequency and the perceived intensity of an act ($\text{Harm} = \text{Frequency} \times \text{Intensity}$). In other words, as either frequency or intensity increases, harmfulness appears to increase as well (Hanish et al., 2013; Ybarra et al., 2014; Zwierzynska, Wolke, & Lereya, 2013). Evidence from longitudinal studies of victimization appears to indicate that both frequency and intensity affect outcomes reflecting victim harm, such as loneliness (Kochenderfer & Ladd, 1996), daily functioning (Ybarra et al., 2014), and depression (Zwierzynska et al., 2013). Accordingly, a high-intensity behavior (e.g., rape) conducted once could cause severe harm, as could a low-intensity behavior (e.g., prank phone call; mean teasing) conducted dozens of times. Bullying measures may better capture the effect of intensity by assessing a wider range of behaviors. Generally, bullying measures include items tapping medium-intensity behaviors like punching and kicking or social exclusion rather than lower-intensity (e.g., pinching) or higher-intensity

(e.g., stabbing) behaviors, resulting in bullying measures with relatively uniform intensity levels. Consequently, with relatively little variation in the intensity of the forms bullying measured, and with no direct measurement of harm, frequency becomes the main indicator of harmfulness, thereby conflating frequency with harm. We suggest instead that the range of behaviors sampled could be expanded to include lower-intensity (e.g., eye-rolling; glaring) and higher-intensity behaviors (e.g., rape; aggravated assault; strong-arming students to rob them) that have appeared in some measures of aggression and serious violence (Elliott, Huizinga, & Morse, 1986; Galen & Underwood, 1997). Where appropriate and not impeded by practical constraints, the inclusion of items covering a wider range of intensities would permit an examination of the consequences of low-frequency, but high-intensity bullying and victimization experiences.

A second complementary approach may be to assess harm directly rather than using frequency of bullying or victimization as an indirect indicator of harmfulness. In many current measures, there is an implicit component that helps to satisfy Olweus's (1993) insistence that trivial, relatively harmless actions are not considered bullying. Currently, bullying researchers typically measure the frequency of specific bullying behaviors (e.g., pushing, hitting, kicking; spreading rumors and other typically medium-intensity behaviors) that have been shown in longitudinal research to be harmful to victims (e.g., Hemphill et al., 2011; Özdemir & Stattin, 2011; Ttofi, Farrington, Losel, & Loeber, 2011; Ttofi, Farrington, & Losel, 2012), as opposed to, or at least in addition to, global questions about bullying (e.g., how often have you bullied someone). In measuring specific bullying behaviors that have been demonstrated to be harmful, researchers do not have to rely upon frequency alone as an indicator of harmfulness, giving more flexibility with respect to how they can score and analyze bullying measures, including the use of continuous scores in which no threshold or cut-off is established.

Furthermore, in addition to assessing frequency of exposure, investigators could ask respondents to rate the extent to which they have been harmed or hurt by specific bullying behaviors. In so doing, investigators would have a means to analyze links between self-perceptions of harmful exposure to various forms of bullying and measures of psychosocial adjustment. These research methods have the potential to generate information about the antecedents and consequences of low-frequency exposure to harmful forms of bullying, such as cyber-bullying. Indeed, one could analyze the interaction between frequency of victimization and self-reported harmfulness of victimization to examine whether the consequences of exposure to bullying perceived as harmful vary as a function of the frequency of victimization. The importance of victims' views of harmful impact is supported by research on general aggression demonstrating that perceived harm is a better predictor of victim behaviors than are actual rates of victimization (Book, Hunter, Costello, & Gautier, submitted) and that harm from the victim's perspective is likely to be the most powerful predictor of the final outcomes of that victimization (Theriot, Dulmus, Sowers, & Johnson, 2005).

Definitional challenges and implications

To summarize, we propose defining bullying based on three key attributes: goal-directed behavior, a power imbalance, and victim harm. The inclusion of each of these attributes in the definition is supported by theory and strong empirical evidence. They distinguish bullying from general aggression and are amenable to measurement and study. The concept of bullying is robust and applicable to a wide range of domains, ages, and behaviors.

There are, however, several challenging definitional issues that we wish to examine further.

Power paradox (evolutionary signaling theory)

Although the reformulated definition is intended to clarify the concept of bullying, it also highlights a paradox or what seems like a logical inconsistency. We have emphasized that bullying is a goal-directed behavior, often in service of gaining social dominance. However, from an evolutionary perspective, it is paradoxical that bullying *by definition* is directed against a less powerful individual, as this concept conflicts with the nature of dominance hierarchies. Dominance hierarchies are founded on power imbalances, yet they have widely evolved as a way to *reduce* conflict (e.g., bullying) between lower-ranked and higher-ranked individuals (Alcock, 1988). When aggression does occur in

dominance hierarchies, it is supposed to involve either brief, low-intensity aggression between mismatched opponents (usually over immediate resources or reproductive opportunities) or conflicts between closely-ranked individuals who have the chance to gain significant benefits with relatively even odds of success (Archer, 1988). These latter fights tend to be rare as they are costly to both parties. This then leaves us with an apparent paradox. On the one hand, dominance hierarchies are supposed to reduce harmful aggression between individuals of greatly different power levels (i.e., bullying). On the other hand, we have reviewed evidence that bullying for dominance goals is actually relatively common.

One potential explanation for this paradox is that some instances of bullying that are perceived to be contests over dominance may in fact involve bullying for resources or reproduction (e.g., Bazelon, 2013). Nevertheless, the apparent ubiquity of bullying for social status forces one to consider a perplexing logical problem: stronger individuals have little to gain by bullying much weaker individuals who neither threaten their position nor offer the necessary resources to move up in the hierarchy. While it is possible that bullies simply fail to observe or respect the submissive signals of weaker individuals (Lorenz, 1966), bullies' average or better social skills (Garandea & Cillessen, 2006; Shakoor et al., 2012; Sutton et al., 1999) weakens that explanation. Instead, we draw upon evolutionary signaling theory (Cronk, 2005; Zahavi & Zahavi, 1997) to suggest the counter-intuitive proposal that when a bully is striving for dominance, he or she is sending a signal to the peer group, and consequently the bullying transcends the dyadic bully-victim relationship as it primarily concerns group perceptions of the bully.

This signal is intended to inform the peer group that it would be costly to aggress against the bully. This signal is aimed not at the victim of the bullying, who may pose no real threat nor challenge the bully's status. Instead, the signal is aimed at others who are closer to the bully's own status. For example, adolescent males who are perceived as being tough are afforded protection from aggression as their reputation makes other males less likely to physically aggress against them even if provoked by insult (Archer & Benson, 2008). This may be why bullies so often perform their acts in front of peers (Salmivalli, 2010) – they desire an audience that can receive their signal of willingness to employ aggression. The benefits of using victims to send signals to others is that those who receive the signal will judge the signaler (i.e., the bully) as more willing to generally use aggression in potential conflicts and thus the bully is perceived as a more risky and costly individual with whom to compete. This signal might also relate to the ability of an individual to provide for/protect a mate and children or that they possess genes favorable to success in competition with other peers. Thus, bullying becomes a way of inflating one's reputation or standing within a dominance hierarchy, deterring competition by means of a tough reputation. This would explain (in part) the effectiveness of anti-bullying interventions that target peer responses to bullying as a means of reducing positive interpretations of the bullies' signal of dominance (e.g., Kärnä et al., 2013) as well as why powerful bullies, whose signals are likely to be stronger, are less affected by such interventions (Garandea et al., 2013).

Moreover, in the case of dominance goals, signaling theory also explains why there is a limit to the degree of power imbalance between bully and victim. A Grade 8 student who picks on a weaker Grade 8 victim sends an honest (i.e., hard to fake) and strong (i.e., costly danger of retaliation) dominance-related signal about his/her willingness to engage in violence with a relative peer. A Grade 8 who picks on a Grade 1 sends an honest but weak (i.e., no danger of retaliation) signal that tells others that the bully is only capable of challenging far weaker targets than peers (and thus might ironically signal that he is a potential victim). So there is a trade-off in the strength or effectiveness of the signal versus its costs (Zahavi & Zahavi, 1997). Choosing weaker victims sends weaker signals. If a bully attacked a much stronger individual (an act of general aggression), they would be sending a very strong signal about their willingness and capacity to use aggression, but they would also face a very high risk of very costly retaliation. Thus bullies should be selective in choosing a victim who enables them to send a good signal yet who is not costly to aggress against. While we are not aware of data specifically on the first point, as mentioned previously, there is evidence that bullies use a power imbalance to select low-cost victims (Veenstra et al., 2010, 2013).

Our signaling theory approach to bullying offers at least three novel predictions. First, the adaptiveness of bullying for dominance should be a function of the cost-benefit ratio of the signal that is sent. Second, bullying for resources or reproductive benefits may involve larger power imbalances than bullying for dominance given that there is no signal-related cost for bullying much weaker individuals. Finally,

ecological theory predicts that the signaling value and dyadic power imbalances will be influenced by individual and environmental contexts such as who is involved (as bully, victim, and witness) as well as when and where the bullying is conducted (e.g., in an open cafeteria at lunch versus in a wash-room; Atlas & Pepler, 1998; Swearer & Espelage, 2011; Vaillancourt et al., 2010). Thus our definition reveals the paradox, but by focusing attention on the goal-directed nature of bullying, it sheds light on the fact that rational cost-benefit decision making (related to signaling theory) likely underlies what at first blush seems unnecessarily risky and even foolish (i.e., “needlessly” bullying less powerful, submissive individuals).

Bully-victims

If bullying is defined as goal-directed aggressive behavior against a less powerful target, there are reasons to question whether the aggressive behavior of bully-victims fits this definition. Research has shown that bully-victim status is associated with rejection, unpopularity, low social competence, and ineffectual aggression, and in contrast to pure bullying, it is not linked with adaptive outcomes such as power and dominance (Marini et al., 2006; Volk et al., 2012b). These traits and outcomes make it difficult to see how their aggressive actions could consistently entail an exploitation of a favorable power imbalance. One possibility could be engaging in displaced aggression against weaker individuals (e.g., younger children), with greater age and strength tipping the power dynamic in their favor. In contrast, if a bully-victim were to retaliate impulsively and emotionally with ineffectual aggression against a stronger bully, this behavior should be classified as reactive aggression rather than bullying. Youth classified as bully-victims do in fact display higher levels of reactive aggression than instrumental aggression, and thus their aggressive actions may be more automatic, defensive, and emotional rather than goal-directed (Salmavalli, 2010; Schwartz, Proctor, & Chien, 2001). Thus, research calls into question the extent to which the aggressive behavior of bully-victims would generally fit the definition of bullying, given the low likelihood of it being goal-directed (as opposed to reactive) and involving an exploitation of power. Consequently, as discussed previously, it would be beneficial for investigators to use aggression measures that assess form, function, and imbalances in power in order to distinguish bully-victims from youth who might more properly be labeled aggressive-victims, a term some researchers have employed (e.g., Schwartz et al., 2001). Given the major behavioral and psychosocial differences that have been revealed in the literature, it is crucial that researchers carefully distinguish between pure bullies and bully-victims in order to better understand the origins and consequences of bullying per se.

Bullying and reactive aggression

As previously stated, the definition of bullying is inconsistent with reactive aggression because the latter is a defensive response as opposed to offensive aggression that exploits an imbalance of power, and it is typically automatic and impulsive rather than a goal-directed behavior (Berkowitz, 1993; Blair, 2010; Hubbard et al., 2010; Vitaro et al., 2006). However, is bullying always offensive rather than retaliatory in nature? In line with the definition of bullying, one key to answering this question is whether retaliation can, at least in some cases, be viewed as a goal-directed behavior, as opposed to being an impulsive, emotional and automatic action. Several lines of evidence suggest this is the case. First, revenge is commonly cited as a goal or motive for aggression and violence (Pinker, 2011). Secondly, the pursuit of vengeance in a delayed, planned, and premeditated fashion (e.g., delaying an attack until the intended victim is alone) entails many of the cardinal elements of proactive, goal-directed aggression, despite having provocation and negative affect in common with reactive aggression. Moreover, delayed, planned, deliberate revenge-seeking is not consistent with neurobiological models of reactive, affective, defensive and impulsive aggression, which is characterized as an immediate, defensive fight response, suffused with negative affect, and driven by the activation of threat circuitry (Blair, 2012; Steiner et al., 2011). Further theoretical and empirical support for including revenge-oriented aggression within the domain of proactive, goal-directed aggression is provided by factor analyses of the Peer Conflict Scale demonstrating that items tapping delayed, premeditated vengeance (e.g., I hurt others for things they did to me a while back) load strongly on proactive aggression scales (Marsee et al., 2011).

Taken together, these findings suggest that revenge-driven, delayed and deliberate retaliatory aggression is consistent with proactive, goal-directed aggression, a prerequisite for classifying aggression as bullying. Therefore, this research provides theoretical and empirical support for suggesting that bullying can be retaliatory, provided that it is a delayed, planned and premeditated response, and as per usual, that the aggressor has a power advantage over the victim. In accord with the conclusion that bullying may serve a retaliatory function in some cases, some studies have found that bullying is related to both reactive and proactive aggression (Camodeca et al., 2002; Salmivalli & Nieminen, 2002), although links with proactive aggression are generally stronger and more consistent (see discussion above).

Sadistic bullying

We have offered an adaptive explanation of bullying that suggests it is the result of cost versus benefit decisions. But a not-uncommon explanation for bullying is that it is motivated by sadism (Bosacki, Marini, & Dane, 2006) that on the surface appears maladaptive. We suggest two arguments against this line of thinking. First, one should not confuse proximate mechanisms with their ultimate functions. For example, sex is (usually) pleasurable, but its ultimate evolutionary function is reproduction. So any anger, sadistic pleasure, and excitation that co-exists with bullying is likely to be a proximate mechanism rather than an ultimate goal. Second, research shows that most bullies do not score exceptionally high on psychopathic or sadistic scales (Viding, Simmonds, Petrides, & Frederickson, 2009). Thus while bullies are likely to be more callous and hostile (Book et al., 2012) than other adolescents, sadism does not appear to be a common or predominant goal.

Implications for measurement of bullying

Although it is critical from a conceptual standpoint to have a clear definition of bullying that is consistent with current theory and empirical research, we do not think it is necessary to provide a comprehensive definition to respondents completing bullying and victimization measures. Currently, some investigators provide a definition to participants, which distinguishes “mean and hurtful” from “friendly and playful” teasing, and states that the mean and negative behavior happens “repeatedly” or “over and over again,” seemingly to emphasize that bullying involves the intent to cause non-trivial harm (e.g., Konishi et al., 2009; Solberg & Olweus, 2003). However, researchers could eliminate these aspects of the definition from their measures if they were to assess bullying in accordance with the conceptual definition proposed herein. In particular, they could evaluate the intent to cause harm by doing the following: (1) assess specific bullying behaviors (e.g., hitting and pushing; social exclusion) that have been shown in research to harm victims, rather than asking global questions; (2) measure the goals or functions of the bullying; and (3) in addition to obtaining frequency ratings, assess direct harm experienced by the victim. In following this approach, researchers could replace cumbersome definitions of bullying in their measures with simple questions asking how often they have taken part in specific aggressive actions against those who were weaker, less popular, or who could not defend themselves (e.g., Book et al., 2012). Thus, as discussed previously, we propose that the essential components of bullying and victimization measures include an assessment of harm, function, and imbalances in power.

Cyber-bullying

As a relatively new form of bullying that has emerged in the wake of recent technological developments, cyberbullying presents some challenges with respect to applying the definition for the purposes of measurement and classification (Olweus, 2013). As is true of other forms, harmful behavior involving electronic devices may be classified as aggression or as bullying, depending on whether it meets the definition of the latter with respect to the requirements of goal-directedness, a power imbalance, and harm (e.g., Slonje & Smith, 2008). Although the use of an electronic medium may nullify, for instance, the importance of differences in physical strength, it is still possible to conceive of imbalances of power in this situation. For example, lower social status may make it more difficult for a rejected youth to defend him or herself against humiliating insults or pictures posted to the Internet

by a popular bully. On the other hand, the possibility of an online aggressor remaining anonymous through the use of a pseudonym complicates judgments about imbalances of power, although one might argue that a victim's inability to identify her attacker implies that she would have difficulty defending herself. Despite these complications, cyber-bullying is simply another form of aggression that must still satisfy the requirements of goal-directedness, a power imbalance, and harm in order to be considered bullying and not aggression.

Bullying, morality, and human rights

Although we contend that bullying is a goal-directed and oftentimes adaptive aggressive behavior, with a favorable cost-benefit ratio owing to the exploitation of a power imbalance, we do not mean to imply that it is an acceptable behavior. Bullying is an act that is contrary to moral perspectives in which it is thought that interpersonal relations should be governed in accordance with principles of harm/care (e.g., kindness, compassion, avoidance of cruelty and aggression), fairness/reciprocity, and the laws and regulations of a rational/legal system that protect a person's rights and afford safety from harm (e.g., anti-bullying policies; laws regarding assault etc.; [Haidt, 2007](#); [Pinker, 2011](#); [Rai & Fiske, 2011](#)). Instead, it seems consistent with an Authority Ranking perspective on relationships ([Rai & Fiske, 2011](#)), in which people believe they are entitled to use power conferred by dominance, social status, size, strength or wealth to attain their goals, with minimal regard for the harm that might be caused or the fairness of the transaction. Consistent with this point of view, bullying has been described as a human rights violation of Article 29 of the United Nations Convention on the Rights of the Child's statement that "the preparation of the child for responsible life in a free society, in the spirit of understanding, peace, tolerance, equality of the sexes, and friendship among all peoples, ethnic, national and religious groups and persons of indigenous origin. As a global society, we must educate children to ensure they develop positive attitudes and behaviors and avoid using their power to bully or harass others" ([Pepler & Craig, 2009](#)). In keeping with the United Nations Convention on the Rights of the Child, UNICEF Canada's Rights Respecting Schools Initiative seeks to prevent bullying and foster a safe, inclusive and respectful learning environment by teaching children about the importance of respecting the rights of others ([Unicef Canada, 2013](#)). Casting bullying as a violation of moral principles, legal codes and human rights is important because it justifies intervention programs that encourage the cessation of bullying behaviors even though they can have many positive outcomes for their perpetrators.

Conclusions

Bullying is a complex, heterogeneous phenomenon ([Farrell, Della Cioppa, Volk, & Book, 2014](#)). Decades of research have produced thousands of papers on the topic ([Berger, 2007](#)). In large part this research was stimulated by a definition provided by Olweus in 1993. Although that definition has proven to be tremendously useful as a catalyst for research, in the present paper we have proposed a revised definition that takes into account recent theoretical advances and empirical evidence. While our definition is primarily based on adolescent data, we feel that it applies equally well to bullying among both older and younger populations. There are three main components of our definition.

First, we have proposed that bullying should be defined more specifically as goal-directed behavior rather than simply intentional harm-doing. Theoretical and empirical support for the proposed revision is provided by research indicating that bullying is more strongly associated with proactive rather than reactive aggression, and by evidence that for some youth it is evolutionarily adaptive with respect to attaining resources, increasing opportunities for reproduction, and enhancing one's reputation and social dominance. The benefits of conceptualizing bullying in this manner include clarifying how it is distinct from reactive aggression, and enhancing the theoretical foundation for anti-bullying interventions. Next, consistent with [Olweus's \(1993\)](#) original definition, we have emphasized that a power imbalance is a crucial, ecologically-dependent feature of bullying that differentiates it from proactive aggression, and enables individuals who bully to lower the cost of their aggression, thereby enhancing its adaptiveness. Finally, we suggested that the repetition of bullying may not be a necessary feature. Instead, we recommended measuring both frequency and intensity of bullying and victimization, and victim perceptions of harm, in order to capture the full spectrum of bullying

behaviors, including low-frequency and high-intensity (e.g., cyberbullying) incidents that may nevertheless be quite harmful. Taken together, we hope the proposed definitional revisions will spur theoretical and applied research that will more clearly examine bullying as a unique form of aggression, which in turn may provide a foundation for effective, evidence-based anti-bullying interventions and policies.

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