Editorial

A discussion on bullying and cyberbullying: An introduction by the editor

Recently this journal published a special issue on cyberbullying, which is “...voluntary and repeated assaults against a person through electronic means” (Menesini & Spiel, 2012). Researchers refer to this with terms like cyberbullying (as the editors of the issue prefer), electronic bullying, or internet bullying. Cyberbullying gets a lot of attention these days, as many people and researchers believe that “...cyberbullying represents a threatening experience among young people in different Western countries”. The special issue offers a wealth of new research data and interpretations: longitudinal data (Kostas, Demetriou, & Hawa, 2012); false memories in relation to traditional and cyberbullying (Vannucci, Nocentini, Mazzoni, & Menesini, 2012); a comparison of cyberbullying and traditional bullying in adolescence (Perren & Gutzwiller-Helfenfinger, 2012); direct and indirect effects on self-control in adolescents of 25 European countries (Vazsonyi, Machackova, Sevcikova, Smahel, & Cerna, 2012); cyber-victimization and popularity in early adolescence (Gradinger, Strohmeier, Schiller, Stefanek, & Spiel, 2012); feelings of remorse in cyberbullies (Slonje, Smith, & Frisen, 2012); the stressfulness of on-line victimization (Staude-Müller, Hansen, & Voss, 2012), and the relation between mental health and cyber-victimization (Dooley, Shaw, & Cross, 2012).

From conference discussions, like the 15th European Conference on Developmental Psychology held in Bergen, 23–27 August 2011, it became clear to me that the father of bullying research, Dan Olweus, had reservations as to the specialty of this new form of bullying. I asked him politely to write a paper with his views on cyberbullying. Happily enough he was prepared to do so. This invited paper, with the challenging title “Cyberbullying: An overrated phenomenon?” (Olweus, 2012a, this issue), is so clearly meant as a contribution to the scientific discussion on cyberbullying, that we have called it a “Discussion paper”. Olweus explains that claims about cyberbullying in the media are greatly exaggerated; he demonstrates that cyberbullying is a low-prevalence phenomenon, and that it has not made new victims and bullies who are not also involved in some form of traditional bullying. And Olweus recommends that schools should still...
direct their anti-bullying efforts to counteracting traditional bullying that is likely to reduce the already low prevalence of cyberbullying.

I then invited three experts, who contributed themselves important research on cyberbullying: Sameer Hinduja and Justin Patchin from the USA, Ersilia Menesini from Italy and Peter Smith from the UK, to discuss the invited paper by Dan Olweus. Sameer Hinduja and Justin Patchin (2012, this issue) start out by disagreeing with Dan Olweus’ claim that media and even researchers suggest that the prevalence of cyberbullying is a very frequent phenomenon and that the frequency has increased dramatically. That this is not the case is at the same time demonstrated by Hinduja and Patchin’s own research data. Furthermore Hinduja and Patchin depict an overlap between offline and online bullying. So in that respect he agrees with Dan Olweus.

Ersilia Menesini (2012, this issue) agrees that cyberbullying is a specific expression of bullying with which it shares several characteristics. But she reverses the perspective of Olweus by asking (and answering) the following questions: How and to what extent might cyberbullying be underestimated if we neglect its specificity? How and to what extent can the studies on cyberbullying help us deepen the knowledge of bullying as a whole problem?

Peter Smith (2012, this issue) more directly states that Dan Olweus underestimates the impact of cyberbullying on the research programme that he has done so much to promote. In his eyes cyberbullying provides opportunities, in terms of a broader disciplinary base, greater permeability of age and context barriers, and new theoretical possibilities.

I invited Dan Olweus to respond to these critical remarks. He then wrote his thoughtful and detailed rejoinder (Olweus, 2012b, this issue). Essentially he concludes that the empirical evidence as well as arguments from the three reviewers validate his original position that cyberbullying is a basically low-frequent phenomenon and that there has not occurred a marked increase in the prevalence rates of cyberbullying over the last five or six years. He, like the others, appreciates that the possible negative effects of cyberbullying, over and above the effects of traditional bullying, have received attention in the recent research literature. But he explains with several methodological and theoretical arguments that it is necessary to place cyberbullying research in “proper context”, and that is, he claims, in a context along with traditional bullying. Olweus stresses again that the communication on cyberbullying should be a bit more realistic with respect to its prevalence and nature.

It is my hope as an editor that this special section, comprising an in-depth discussion on cyberbullying in relation to traditional bullying, or simply online and offline bullying, will stimulate the research and the theoretical understanding of bullying, as well as eventually the prevention of it. I am grateful that the authors were prepared to confront each other with
arguments and contra-arguments, apparently together with me believing in the French saying “Du choc des opinions jaillit la lumière”, which translates to “The clash of opinions generates light (Wubbels et al., 2012). I thank all of them for their contributions to this important discussion.

REFERENCES

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Editor
Invited Expert Discussion Paper

Cyberbullying: An overrated phenomenon?

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The paper argues that several claims about cyberbullying made in the media and elsewhere are greatly exaggerated and have little empirical scientific support. Contradicting these claims, it turns out that cyberbullying, when studied in proper context, is a low-prevalence phenomenon, which has not increased over time and has not created many “new” victims and bullies, that is, children and youth who are not also involved in some form of traditional bullying. These conclusions are based on two quite large samples of students, one from the USA and one from Norway, both of which have time series data for periods of four or five years. It is further argued that the issue of possible negative effects of cyberbullying has not received much serious research attention and a couple of strategies for such research are suggested together with some methodological recommendations. Finally, it is generally recommended that schools direct most of their anti-bullying efforts to countering traditional bullying, combined with an important system-level strategy that is likely to reduce the already low prevalence of cyberbullying.

*Keywords:* Cyberbullying; Victims; Bullying.

Over the past five or six years, newspapers, the popular press, and the research community as well as educators and parents have paid a good deal of concerned attention to a relatively new form of bullying among schoolchildren and youth, usually named cyberbullying or electronic
bullying. Cyber- or electronic bullying, which are the terms I will use in this paper, is broadly defined as bullying performed via electronic means such as mobile/cell phones or the internet. The general picture created in the media—and often also by researchers and authors of books on cyberbullying—is that cyberbullying is very frequent, that it has increased dramatically over time and that this new form of bullying has created many new victims and bullies in addition to the victims and bullies involved in “traditional” bullying. In addition, it is often argued or implied that cyberbullying is very difficult for adults to discover and counteract, creating a feeling of powerlessness in adults and maybe students as well.

In this paper I will argue that the claims about cyberbullying made in the media and elsewhere are often greatly exaggerated and that such claims, by and large, have very little scientific support. Such claims may also have some unfortunate consequences, which I will sketch briefly. My arguments are based on empirical analyses of several large-scale studies two of which have cross-sectional or school-level longitudinal data, respectively, at four and five time points. Furthermore, I will report some analyses about the possible negative effects of being exposed to cyberbullying. I will also discuss briefly some methodological issues in research on cyberbullying. Finally, I will also present some thoughts on how to counteract cyberbullying and suggest steps a school or community can take to further reduce and prevent cyberbullying among their students.

Due to the character of the paper and its conclusions, some of which may represent a challenge to the field or parts of the field, I will not provide much detail about samples, measurement instruments and other methodological issues. However, what will be presented in the following pages will hopefully be sufficient for a reader to get a good grasp of what kind of analyses have been conducted and their implications.

In order not to single out individual studies or researchers, I have also chosen not to give much reference to research related to the claims that will be scrutinized. However, readers interested in finding references to recent cyberbullying research will benefit from consulting the previous issue of this journal (European Journal of Developmental Psychology, 9(1), 2012).

BRIEFLY ON METHODS

Participants/samples

Most of the key research issues sketched above will be highlighted with data from two large-scale studies, one from the USA and one from Norway. The very large sample from the USA consists of four cohorts of schools, all of which were to implement (for the first time) the Olweus Bullying Prevention Program (OBPP; Olweus & Limber, 2010) 3–4 months after having
administered the Olweus Bullying Questionnaire (OBQ; below). The numbers of students and schools in the four cohorts for four time periods were: 2007, 65,274 students in 159 schools; 2008, 140,758 students in 468 schools; 2009, 148,515 students in 472 schools; and 2010, 95,943 students in 250 schools. Students came from grades 3 to 12 and to compensate for some underrepresentation of participants from the senior high school level, data were weighted to give each grade roughly the same weight. Participants were thus 450,490 students in 1,349 schools in total, actually representing about 1% of the total US student population in grades 1–12 (50 million students). In the present file, each school is represented with data from only one time point. It cannot be asserted definitively that these cohorts were nationally representative but we know that schools applying for participation in the OBPP come from all over the USA. In addition, we see that our prevalence results for bully/victim problems do not differ much from nationally representative bully/victim prevalence data from large-scale (but still much smaller) samples in the Health Behaviour in School Children (HBSC) project in 2006, using the same basic global questions from the OBQ (Craig et al., 2009).

To increase robustness and generalizability of the findings, I also used a sample of 41 schools in Oslo, the capital of Norway. These schools, which represented approximately one third of all schools in Oslo, had all started with the OBPP several years earlier. However, as part of the community’s anti-bullying work, all of the schools took the OBQ on a regular basis. For these schools, we thus have longitudinal data (at the school level) for five years, from 2006 to 2010. In this way, we obtained data from exactly the same schools over a substantial period of time. The school populations in Oslo (and most of Norway) are usually very stable and about 25% of the students in Oslo have a non-Norwegian ethnic background. A total of approximately 9,000 students from grades 4–10 participated in the yearly measurements (with a new grade 4 cohort entering and the grade 10 cohort leaving each year).

Additional analyses were performed on a relatively large-scale US data set, which my colleagues at Clemson University, Robin Kowalski and Sue Limber, graciously gave me permission to use for the purposes of the present paper. These data were collected in six middle schools in the southeastern and northwestern USA and comprised 2,684 students in grades 6, 7 and 8 with data on both forms of bullying and a well-known scale on self-esteem. More details about this sample can be found in Kowalski and Limber (2007) and Kowalski, Limber, and Agatston (2008).

Measures and procedure

Students in all three study samples completed anonymously the Revised Olweus Bullying Questionnaire (Olweus, 1996) with a detailed definition of
bullying and 39 key questions some of which also had sub-questions. The
definition stresses the three common criteria of bullying that I had
already suggested in the 1980s: Intentionality; some repetitiveness; and a
power imbalance between perpetrator(s) and target (Olweus, 1986, 1999,
2010a; Solberg & Olweus, 2003). This student-adapted definition reads as
follows:

We say a student is being bullied when another student, or several other students:

- say mean and hurtful things or make fun of him or her or call him or her mean
  and hurtful names
- completely ignore or exclude him or her from their group of friends or leave him
  or her out of things on purpose
- hit, kick, push, shove around, or lock him or her inside a room
- tell lies or spread false rumours about him or her or send mean notes and try to
  make other students dislike him or her
- and other hurtful things like that.

When we talk about bullying, these things may happen repeatedly, and it is difficult
for the student being bullied to defend himself or herself. We also call it bullying
when a student is teased repeatedly in a mean and hurtful way.

But we don’t call it bullying when the teasing is done in a friendly and playful
way. Also, it is not bullying when two students of about the same strength or power
argue or fight.

It is worth noting that this definition focuses on traditional, mostly face-to-
face bullying and there is no reference to cyberbullying.

After the definition, the students respond to a global or general
question about having been bullied in the past couple of months, with five
frequency response alternatives. This general question is followed by eight
questions about various forms or ways of being bullied covering the three
main categories or facets of verbal, physical, and indirect or relational
bullying. Since 2005, a question about cyberbullying with two sub-
questions about mobile phone or internet has been added in the two first-
mentioned studies. The general question format is presented in Figure 1.
The questionnaire also contains parallel questions about bullying other
students in the past couple of months, using basically the same five
frequency response alternatives. In agreement with statistical and other
considerations, a student is being classified as being bullied (or as having
bullied others) when he or she has responded “2 or 3 times a month” or
more often (Solberg & Olweus, 2003).

In the third study, the ordinary 39 OBQ questions (but without the items
about cyberbullying) were administered to the students followed by a global
cyberbullying question, “How often have you been bullied electronically in
the past couple of months?” (with the five standard frequency alternatives)
and 22 other questions about cyberbullying and some other questions in
a second section of the questionnaire. The cyberbullying questions were preceded by the following definition: “Here are some questions about being bullied electronically. When we say ‘bullied electronically’, we mean bullied through e-mail, instant messaging, in a chat room, on a website, or through a text message sent to a cell phone.” In this section, students also responded to separate questions about the five means or channels of cyberbullying mentioned in the definition (e-mail, instant messaging, etc.). These questions used the same frequency response alternatives as the other questions about traditional bullying and cyberbullying, which is an important prerequisite to making meaningful comparisons between traditional and cyberbullying.
The Kowalski and Limber study (Kowalski et al., 2008) also contained a couple of psychosocial or psychological adjustment variables and for the analyses in the present paper, I selected Rosenberg’s (1965) 10-item general Self-Esteem Scale. This scale was clearly the scale with the strongest associations (Pearson $r$ about .30) with the variables of interest in the present context. Here we used reversed scoring for relevant items so as to make the scale a measure of poor self-esteem. The internal consistency reliability of the scale (Cronbach’s alpha) was .86. A similar, partly overlapping, scale was used in our own study of the functionality and construct validity of parts of the questionnaire in an earlier study (Solberg & Olweus, 2003).

In the analyses of prevalence and change over time we wanted to compare cyberbullying with another form of bullying and one question on direct verbal bullying was chosen for comparison (see Figure 1). Direct negative verbal comments are a characteristic of almost all traditional forms of bullying and can in a sense be seen as prototypical of such behaviour.

Generally, the OBQ is a well-established questionnaire with good psychometric properties, and summary scales of being bullied and bullying others have shown high internal consistency, typically above .80 (e.g., Breivik & Olweus, 2012). The two global questions in particular have been used in a number of international studies including the so-called HBSC studies, which are repeated every four years, with large samples from 40 countries or more in recent years (for example Craig et al., 2009). Several empirical and conceptual analyses have attested to the functionality, construct and concurrent validity of the two global questions (Olweus, 2010a; Solberg & Olweus, 2003) and a scale of bullying others using item response theory analyses (Breivik & Olweus, 2012).

TWO MAJOR CLAIMS

The first two major media (and in part, researcher) claims to be scrutinized assert that cyberbullying is a very frequent phenomenon among today’s children and youth and that the frequency or prevalence of the phenomenon has increased dramatically in recent years, partly in parallel with, and a maybe also as a consequence of, increasing accessibility and use of electronic devices such as mobile phones and the internet.

One of the obvious reasons why some researchers (several of whom seem to come from different fields than psychology) have reported high or very high prevalence figures of cyberbullying is that cyberbullying has been studied “in isolation”, that is, outside a general context of (traditional) bullying, and often also without a general student-friendly definition of what is meant by bullying. To put cyberbullying in proper perspective, it is in my view necessary to study it in the context of (traditional) bullying more
generally. One cannot talk about a phenomenon as bullying unless a reasonably precise definition has been provided to the respondents or the formulation of the questions or other measures used make it quite clear that the contents conform to what is usually implied in bullying. Bullying implies a form of relationship with certain characteristics and the term should not be used as a blanket term for any form of negative or aggressive act (cf. Hunter, Boyle, & Warden, 2007; Olweus, 2010a).

What results are obtained when cyberbullying is studied in the broader context of other forms of bullying is shown in Figures 2, 3, 4 and 5. Figure 2 illustrates the results for the very large US sample (with approximately 440,000 students) of being exposed to direct verbal bullying and to cyberbullying, respectively, for the four consecutive years between 2007 and 2010. The average across-time prevalence for being verbally bullied is 17.6 and the corresponding figure for being cyberbullied is 4.5%. The average for bullying others verbally is 9.6% whereas the corresponding figure for cyberbullying others is 2.8% (Figure 3).

The Norwegian data with prevalence figures from the 41 schools over a five-year period from 2006 to 2010 show a very similar pattern of results but at somewhat lower prevalence levels (Figures 4 and 5). The average prevalence for being verbally bullied is 11.0 while corresponding figure for being bullied by electronic means is 3.4%. For bullying others the relevant figures are 4.2% and 1.4%.

Figure 2. US time series data for 2007–2010 for verbal bullying (being bullied) and cyber bullying (bullied electronically). Data from all over the USA. Total n = 447,000.
With regard to the second claim concerning the presumably dramatic increase of cyberbullying over time, all four figures show that basically no systematic change in prevalence has occurred over the time periods studied. This is true of both being cyberbullied and cyberbullying others—as well as of being bullied and bullying others by direct verbal means.

**Figure 3.** US time series data for 2007–2010 for verbal bullying (other students) and cyber bullying (other students). Data from all over the USA. Total $n = 440,000$.

**Figure 4.** Norwegian time series data for 2006–2010 for (direct) verbal bullying (being bullied) and cyber bullying (bullied electronically). Forty-one Oslo schools and 9,000 students, girls and boys, at each time point.
Brief comments on the first two claims

As documented by the reported prevalence percentages and the four figures based on two very solid samples with different designs, cyberbullying is actually a quite low-prevalence phenomenon, representing only some 25 to 35% of the level of traditional bullying by direct verbal means. It is obvious that the “psychological threshold” for endorsing the global items on cyberbullying is much higher than for direct verbal bullying. The two global questions about cyberbullying are actually among the various bullying items/forms with the lowest prevalence rates. And even if one takes into account the possibility that certain forms of cyberbullying such as being exposed to a single episode of a personally embarrassing picture might not be adequately classified as being bullied (“2 or 3 times a month” or more; a point to be discussed below), there is no doubt that there are many more children and youth involved in traditional verbal bullying than in cyberbullying. As a check on the robustness of the findings, the reported empirical prevalence and time series analyses were also performed with the alternative of “once or twice” (and not “2 or 3 times a month”) as a lower-bound criterion for being classified as being bullied. The pattern of results for these analyses remained very much the same.

Similarly, and in spite of increasing accessibility and use of mobile phones and computers, there were no indications of increases in prevalence of
cyberbullying over time, either as regards being bullied or bullying other students. The same was true of direct verbal bullying.

DEGREE OF OVERLAP OF TRADITIONAL BULLYING WITH CYBERBULLYING

A third common claim made by the media and some researchers alike is that the new form of cyberbullying has created many new victims and perpetrators of bullying. This claim is based on an assumption and maybe some empirical data to suggest that children and youth who are involved in cyberbullying are to a considerable degree different to those engaged in traditional bullying.

To check on this claim, we recoded all the eight different forms of being traditionally bullied into dichotomous 1/0 variables of being bullied ("2 or 3 times a month" or more vs. not being bullied or "only once or twice") and created a summary variable with a value range between 0 and 8. This summary variable, recoded into a being traditionally bullied (1) variable versus not being traditionally bullied (0), was then cross-classified with the dichotomized being cyberbullied variable (1 vs. 0). This cross-classification thus informs us about the degree of overlap between any form of being bullied traditionally and being cyberbullied. The same procedure was applied to the eight questions about bullying other students traditionally and questions about the cyberbullying others (1/0). These analyses were performed on the US sample from 2007 with some 65,000 participants and on the 2008 data set for the Oslo schools with approximately 9,000 participants.

Results documented a very high degree of overlap: Of students who had been exposed to cyberbullying in the US sample, 88% had been bullied in at least one traditional way. Also, for cyberbullying others the overlap was 88%. The results for the Oslo schools were similar, with degree of overlap being 93% and 91%, respectively.

Brief comments

In these analyses, there was only a very small percentage, about 10%, of the participants, who had only been cyberbullied or had only cyberbullied others. These results suggest that the new electronic media have actually created few "new" victims and bullies. To be cyberbullied or to cyberbully other students seems to a large extent to be part of a general pattern of bullying where use of the electronic media is only one possible form, and, in addition, a form with a quite low prevalence.

These results also suggest that even if most cyberbullying actually occurs outside school hours, as has been documented in several other surveys, many—very likely, most—episodes of cyberbullying originate in the school setting.
Possible problems with the data or reported analyses?

Before possibly accepting the above conclusions, it is of course useful to discuss if there are special problems with the data or analyses I have used to substantiate my refutation of the common claims.

It can first be pointed out that the cyber items in the OBQ fitted well with the other forms of being bullied or bullying others, respectively. This was evident from the fact that all of the being-bullied items could be well represented by a single (being bullied) dimension or factor in exploratory and confirmatory factor analyses. The same was true of the bullying-others items as regards a separate dimension.

In addition, it may be useful to investigate how the cyber items relate to variables they can be expected to be associated with, that is, examine some aspects of the construct validity of the cyber items. Since there are no obvious psychosocial adjustment variables in the standard setup of OBQ and, consequently, in the two large-scale studies, I have used the Kowalski and Limber data set for these analyses making use of the Rosenberg Self-Esteem Scale.

The result for the global question about being cyberbullied (with the five frequency response alternatives) is presented in Figure 6, showing a monotone-increasing, basically linear relation with level of poor self-esteem:

![Graph](image-url)

**Figure 6.** Relationship between frequency of being cyber bullied and degree of poor self-esteem.
Students who were exposed to cyberbullying more often, tended to have systematically poorer self-esteem. This result is very much as expected and quite similar to what was found in our previous analyses of the relation between a scale of Global Negative Self-Evaluations (Alsaker & Olweus, 1986) partly built on Rosenberg’s scale, and the global question of being bullied in traditional ways (Solberg & Olweus, 2003).

It is also useful to look at the relation between the five different means or channels of being cyberbullied and poor self-esteem. Since the prevalence rates for some of these variables were quite low, making the results for the individual high-frequency categories somewhat unstable, it was natural to collapse the three highest frequency categories into a single category. For all five channels—e-mail, instant messaging, chat room, website, and mobile/cell phones—there was a clear monotone-increasing, linear relation between the three frequency categories (“not cyberbullied”, “once or twice”, “2 or 3 times a month or more often”) and poor self-esteem. Thus, the more often a student had been exposed to cyberbullying in any of the five listed ways, the poorer the student’s self-esteem. It may also be mentioned in this context that there were substantial correlations between use of the five different channels: With regard to being bullied, the average correlation between the channels was about .50 and for bullying others about .60.

These results for both the global and the individual cyberbullying items are also quite interesting from another point of view. Among researchers, legitimate concerns have been raised about whether, and possibly how, the repetitiveness criterion in the general definition of (traditional) bullying can be applied to cyberbullying. For example, will the use of “2 or 3 times a month” as a lower-bound criterion for classifying a respondent as being bullied miss important information and misclassify students when it comes to cyberbullying? It is obvious that some ways of being cyberbullied such as having been exposed to a personally embarrassing picture or video on a website are often single—and not repeated—acts for both target and perpetrator but can spread quickly to a large group of people. Being exposed to such cyber behaviour can certainly be very distressing for the target and it might be considered a “misclassification” if the student were categorized as “not being cyberbullied” because the event happened only once.

If such “misclassifications” occurred for many episodes of cyberbullying, one would not expect a regular linear increase in poor self-esteem with increasing frequency of cyberbullying but rather some different pattern with an elevated level of poor self-esteem for the “once or twice” category. This was clearly not the result of our empirical analyses and this, then, seems to indicate that use of the standard frequency alternatives worked quite well in our samples. One reason for the obtained, maybe somewhat unexpected, results might be that cyber behaviours such as posting negative pictures or videos are after all very rare phenomena and will therefore impact a small
number of targets. On the other hand, it is also worth pointing out that one of the forms of traditional bullying, that of “spreading false rumours”, is with regard to the implicated spreading mechanisms somewhat similar to the special forms of cyberbullying referred to. And for this form of traditional bullying, there was also a regular, basically linear relation between the five frequency categories and poor self-esteem (as with the other traditional forms). Applying the standard criterion of some repetition for defining somebody as being bullied thus appears to have functioned quite well also for this form of bullying.

Although these results seem to indicate that cyberbullying items function in roughly the same way as items on traditional bullying—which could be a desirable result from the perspective of simplicity—it must be emphasized that only one “external” psychosocial adjustment variable has been used in these analyses. Poor self-esteem is no doubt a meaningful and important variable in this context but to find out if the obtained results can be generalized more broadly, it is obviously necessary to use a larger set of external variables and, very likely, also more channels or means of cyberbullying. More research on this issue is clearly needed.

ARE THERE NEGATIVE EFFECTS OF BEING CYBERBULLIED AND HOW DO WE FIND OUT?

Both media and researchers have told us that there are many serious negative effects of cyberbullying, typically of the same kind as effects of traditional bullying: depression, poor self-esteem, anxiety, suicidal ideation, and psychosomatic problems like headaches and sleep disturbances, to name a few. Although cyberbullied children certainly report such problems or symptoms (as also evidenced in the above analyses of self-esteem), it is difficult to know if, or to what extent, these problems actually are a consequence of cyberbullying. This is because the great majority of cyberbullied children and youth are also bullied in traditional ways, as documented above. How do we try to find out what the “true” effects of cyberbullying are, independent of possible effects of traditional bullying? I cannot see that this issue has received much systematic and useful research attention so far.

In my view, there is no obvious and straightforward approach that will provide a clear-cut answer but I will report here on two strategies that may provide some pointers. First, we can take a closer look at the self-esteem of the group of students who are “pure” cyber-victims, that is, those who have been cyberbullied (“2 or 3 times a month” or more) but not been bullied in traditional ways. Second, there is also a group of students who have been bullied in both traditional and electronic ways and for this “combined” group, we can use regression analyses, for example, to find out about the
relative contributions of cyber- versus traditional bullying to poor self-esteem. Both sets of analyses will be conducted on the Kowalski and Limber data set and with the poor self-esteem variable as a kind of criterion or outcome variable. (In these analyses, I see poor self-esteem largely as an effect or consequence of bullying and not the other way around, poor self-esteem “causing” more bullying—the latter being a position that is contradicted by a lot of evidence, e.g., Arseneault et al., 2006; Arseneault, Bowes, & Shakoor, 2010; Olweus, 2010b; Ttofi, Farrington, Lösel, & Loeber, 2011, and is in my view no longer tenable.)

Regarding the first approach, the pure cyber victim group ($n=45, 27$ girls and $18$ boys) had an elevated level of poor self-esteem ($p < .000$) compared to the non-involved students. The students in this group had approximately the same level of poor self-esteem as the group of pure traditional victims ($ns$) but clearly lower than the combined traditional and cyberbullied group ($p < .000$). This result suggests that there may be some negative effects of being cyberbullied, at least for this relatively small group of students who were only exposed to this form of bullying. This is of course an interesting result although it is natural to wonder how representative this group is of the larger group of students who are bullied in both traditional ways and via electronic means? Do the students in this group have some special characteristics in addition to the fact that they are only exposed to one form of bullying?

**AND WHAT IS THE RESULT WHEN CYBERBULLYING IS COMBINED WITH TRADITIONAL BULLYING?**

In the second approach, based on the combined group of students, the correlation of being traditionally bullied (the sum of the eight dichotomized forms of traditional bullying) with poor self-esteem was $.30$ ($p < .005$) while the corresponding value for the global being-cyberbullied question was only $.08$ ($ns$). Accordingly, in the regression of these variables on self-esteem, the summary traditional being bullied variable significantly predicted poor self-esteem, whereas the cyberbullied variable did not contribute significantly. The interaction between the two being bullied variables was also tested but did not increase prediction ($ns$). Very similar results were obtained when the global being-bullied variable (one item) was used instead of the summary variable.

**Brief comments**

The result for the combined group suggests that being cyberbullied does not have much of an effect over and above the negative effects generated by
traditional bullying. Accordingly, a tentative conclusion from these two sets of analyses could be that the issue of possible negative effects of being cyberbullied is context specific: If a student is bullied only (or mainly) via electronic means, this is likely to have a negative effect on his or her psychosocial adjustment or well-being as measured by poor self-esteem (which is substantially correlated with similar variables such as depression and anxiety). However, if the student is exposed to both traditional and cyberbullying, the additional effect of cyberbullying seems to be negligible. When the student is bullied in several traditional ways (three on the average in the combined group), the addition of cyberbullying does not seem to markedly increase the distress or plight of the exposed student.

But, as emphasized above, the reported results and the conclusion about the possible effects of cyberbullying, although fairly reasonable in my view, must be seen as tentative. Here, I have suggested two ways of estimating the possible negative effects of cyberbullying but there are also other ways of conducting such research. This issue obviously needs to be the focus of several additional studies and approaches, including longitudinal ones.

Nonetheless, the reported results can form the basis of two methodological conclusions or recommendations. The first is that reporting about or researching negative effects of cyberbullying should not be done without taking the possible, co-existing negative effects of traditional bullying into account in one way or another. And if the research is focused on bullying, it is quite essential to study the phenomenon in a context of bullying (and not without context or in a context of being victimized or exposed to negative or aggressive behaviour more generally).

In addition, I want to call attention to another methodological issue related to sample size. Considering the fact that cyberbullying is a low-prevalence phenomenon (about 3–5% for being cyberbullied and 1–3% for cyberbullying others as recorded in the current samples), even what may appear a decent sample of, say, 1,000 students will probably identify only 30–50 cyber-victims, consisting of both boys and girls. The numbers of cyberbullies will be even less, 10 to 30 (if one sticks to the criterion of some regularity). So, if one is interested in examining pure cyber-victims versus combined victims (and/or bullies), for example, the numbers of participants in the various cells dwindle quickly. And to use a lower threshold for classification such as “once or twice” is often not a good solution since this makes it more difficult to find meaningful and reliable patterns of results. Such a strategy is also likely to end up with more chance findings leading to less consistency and progress in the field. Here the obvious basic message is that it is important to have large enough samples to secure adequate statistical power for the issues one wants to study.
UNFORTUNATE CONSEQUENCES OF THE DISTORTED MEDIA PICTURE

Getting back to the media picture, I want to briefly touch on two likely unfortunate consequences. First, such a distorted portrayal of reality will probably generate a lot of unnecessary anxiety and tension among parents and maybe teachers and students. It may also create feelings of powerlessness and helplessness in the face of the presumably “huge” and ubiquitous cyberbullying problem.

Second, such a picture is likely to result in an unfortunate shift in the focus of anti-bullying work if digital bullying is seen as the key bullying problem in the schools. This would probably also result in funnelling a lot of resources in a “wrong” direction while traditional bullying—which is clearly the most prevalent and most serious problem—would be correspondingly downgraded.

But should the results and conclusions be interpreted to mean that we should just disregard and stop bothering about cyberbullying among children and youth? No, that is not the bottom line of the present paper. Since both intuition and some empirical research asking about the perceived impact of hypothetical cyberbullying exposures (Smith et al., 2008) clearly suggest that some forms of bullying such as posting painful or embarrassing pictures or videos may have markedly negative effects, it is important also to take cyberbullying seriously both in research and intervention/prevention. I don’t want to trivialize or downplay cyberbullying but I definitely think it is necessary and beneficial to place cyberbullying in proper context and to have a more realistic picture of its prevalence and nature.

HOW CAN WE COUNTERACT AND PREVENT CYBERBULLYING?

Very briefly, technologically oriented researchers and many book authors tend to emphasize the importance of teaching students, parents, and educators various aspects of “netiquette” concerning such things as internet safety, how the different technologies function, and how to behave properly on the net. It is probably useful for most students, parents, and educators today to achieve a certain level of such basic knowledge about the new technologies. And many schools could certainly benefit from introducing and strictly enforcing clear rules about the use of cell phones and computers/the internet in the schools.

At the same time, there seem to be basic limitations to what can be achieved with such a technological approach, according to a recent meta-analysis (Mishna, Cook, Saini, Wu, & MacFadden, 2011). In this research
synthesis, the possible effects of three psycho-educational interventions designed to increase internet safety and decrease risky online behaviour were investigated with middle-school students. The authors concluded that there were clear indications of increased internet safety knowledge, in particular for one of the programs (I-SAFE), but none of the interventions seemed to change the students’ own risky or inappropriate online behaviour. Although being a small-scale meta-analysis and not focusing directly on cyberbullying, this research certainly suggests that to reduce cyberbullying, it is not enough to increase awareness and knowledge about the new technologies.

Given that traditional bullying is much more prevalent than cyberbullying and that the great majority of cyberbullied students are also bullied in traditional ways, it is natural to recommend schools to direct most of their efforts to counteracting traditional bullying, preferably using a programme with documented effects (cf. Ttofi & Farrington, 2009). In some of our own large-scale intervention studies with relatively few measures focusing directly on cyberbullying (Olweus & Limber, 2010), we have observed (unpublished) that levels of cyberbullying have gone down substantially in parallel with reductions in traditional bullying. Such effects have also been convincingly documented in a recent paper from the large-scale Finnish KiVa project (Salmivalli & Pöyhönen, 2011). The authors conclude that “reducing cyberbullying does not necessarily require programs tailored to target especially these specific forms of bullying (p. 68)”.

Such a conclusion is certainly in line with the general thrust of this paper. At the same time, I think we should also make use of the possibility that attention to cyberbullying cases can lead to a disclosure of what actually goes on in terms of traditional bullying in the school context. In addition, the great focus on cyberbullying in the media and research can probably be used to revitalize societal interest in the phenomenon of school bullying more generally and the need to systematically address this pressing social problem.

**A FINAL SYSTEM-LEVEL PROPOSAL**

Technological experts tell us that in most cases, it is quite possible, although maybe somewhat time consuming, to disclose the sender(s) of negative bullying messages communicated via electronic means. Accordingly, and in concluding, I propose that a very important, and presumably quite effective, measure an individual school or community can take in counteracting and preventing cyberbullying is to invest time and technical competence in disclosing thoroughly a few identified cases of cyberbullying—and then communicate clearly and openly (but anonymously) the results to the
students. This system-level strategy can substantially increase the perceived risk of disclosure and will very likely be able to reduce further the already low prevalence of cyberbullying.

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Commentary

Cyberbullying: Neither an epidemic nor a rarity

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There appears to be some perceptual confusion with regard to the scope and extent of online bullying based on media reports and a number of studies—some of which are theoretically sound and methodologically rigorous and some of which are not. In the following text, we share findings from our own research and those of our peers to highlight the actual prevalence rates of cyberbullying. We also depict an overlap between offline and online bullying based on empirical works to make clear that those who are mistreated in the real world and in cyberspace are not two separate populations. Finally, we champion the systemic approach of enhancing the emotional and relational climate within schools as the most promising way to stem the tide of adolescent aggression.

Keywords: Bullying; Cyberbullying; School; Adolescence; Youth.

Professor Dan Olweus has done more to advance the scholarship of school bullying than anyone else in the world. His groundbreaking work over decades to shed empirical light on this often-overlooked problem has changed the way many view adolescent peer mistreatment. Even more importantly, he has translated that research into practical and evidence-based solutions for schools to implement to reduce the incidence of bullying that occurs within their walls. In his current analysis, Professor Olweus seeks to evaluate certain claims being made by many in the media and allegedly some in the research community about the twenty-first-century variant of
bullying. As researchers who have examined the problem of adolescent cyberbullying for over 10 years, we would like to take this opportunity to offer our thoughts on Professor Olweus’ efforts to expose misleading or disingenuous claims in the academic literature and popular press.

The first claim that Professor Olweus seeks to dispel is that “…cyberbullying is a very frequent phenomenon among today’s children and youth and that the frequency or prevalence of the phenomenon has increased dramatically in recent years” (p. 525). He asserts that major media and even “some researchers” have promoted this perspective. We are aware of no legitimate research, at least among those papers published in the United States, that suggests that cyberbullying is “very frequent” or that it has “increased dramatically in recent years”. Let’s take a look at what we do know.

When we first started exploring cyberbullying in 2002, there was literally no research that existed. Since then, we have conducted seven studies, which include over 12,000 adolescents from over 80 schools across the United States, using a variety of methodologies. We have written several academic articles and three books which detail results from this research. While our methods have evolved over the course of our research programme, the five most recent surveys have been based on random samples of known populations of middle and high school students using a measure of cyberbullying that has proven reliable and valid.¹ In our research, we inform students that cyberbullying is when someone “repeatedly makes fun of another person online or repeatedly picks on another person through e-mail or text message or when someone posts something online about another person that they don’t like”. Using this definition, about 20% of the over 4,400 randomly selected 11- to 18-year-old students we surveyed in 2010 indicated they had been a victim at some point in their life (Hinduja & Patchin, 2012). About this same number admitted to cyberbullying others during their lifetime. Finally, about 10% of kids in this recent study said they had both been a victim and an offender.

And this is just a summary of our activities. There are several other very competent researchers from a variety of academic disciplines doing excellent work that is complementary to ours. In 2011 we reviewed 35 papers that were published in peer-reviewed journals and found that on average 24% of students had been cyberbullied and 17% of students admitted to engaging in cyberbullying behaviours (Patchin & Hinduja, 2012). So, approximately one in four teens have experienced some form of cyberbullying, depending on who is sampled and how cyberbullying is defined and measured.

¹Copies of our questions along with psychometric properties can be obtained from the contact author on request.
Olweus’ findings that 4.1–5.0% of youth have been cyberbullied and 2.5–3.2% of youth have cyberbullied others are simply out of line with the weight of the available evidence. We are not aware of any research that has found rates that low. We do, however, find in our research, and have observed in the published work of others, that school bullying is still more prevalent today than cyberbullying.

Similarly, the rates found in our research, though cross-sectional, have not demonstrated any significant trend as increasing or decreasing over the last ten years. Furthermore, there is no cross-sectional or longitudinal research that we have reviewed which portrays such a tendency. We have found that more teen targets of cyberbullying are coming forward today than ever before, but those numbers are still too small (only about one quarter of targets tell an adult about their experiences). So the facts that more teens are telling their stories, and more high-profile tragic incidents are being reported in the media, may lead some people to conclude that the problem is increasing. But like Professor Olweus, we do not see any evidence of this.

Another claim Professor Olweus takes issue with is that some suggest that “...the new form of cyberbullying has created many new victims and perpetrators of bullying” (p. 529). This, too, is a contention that we have not seen in mainstream research.

For example, Ybarra and Mitchell (2004) found that about half of cyberbullying victims and those who engage in cyberbullying report also experiencing traditional, offline bullying. In one of our previous studies, we found that traditional bullies were more than twice as likely to be both the targets and the perpetrators of electronic forms of bullying compared to those who do not engage in traditional bullying (Hinduja & Patchin, 2008). Moreover, we learned that victims of offline bullying were 2.7 times as likely to be the victim of cyberbullying. Based on our data from 2010, almost two thirds of the youth who reported being cyberbullied in the previous month said they were also bullied at school within that same time period. Similarly, over three quarters of those who admitted to cyberbullying others also admitted to bullying others at school in the previous 30 days (Hinduja & Patchin, 2012). It appears that, with this phenomenon, we are often dealing with a population of targets who are doubly susceptible to victimization—both online and off—and a population of aggressors who do not discriminate when it comes to whom they mistreat—and where. This is consistent with Olweus’ findings, but inconsistent with his presentation of the conventional wisdom.

This leads us to the crux of the problem with Professor Olweus’ analysis. It is hard to fully evaluate the claims that he is making since he does not direct us to the specific studies or media reports he is referring to.
He seems to want to “protect the innocent” by not singling out “individual studies or researchers”. But this doesn’t help us to identify or diagnose the discrepancies. While it is not surprising that some media reports have resorted to overstating the problem of cyberbullying to sell a story, in order for us to advance this developing body of research, it is vital to identify the particular studies that return errant findings so that we can point out the unique characteristics of the methodology that may help us to better understand the results. For example, studies that target a self-selected online sample of older youth will surely yield results which point to a higher prevalence of cyberbullying than those that target younger students in a school setting that utilizes comprehensive bullying prevention curricula.

Professor Olweus concludes his analysis by offering a prevention and intervention model that he suggests could be effective at preventing all forms of bullying, no matter where it occurs. We also agree that the solution to adolescent aggression in all of its variants lies in a systematic and comprehensive multi-domain effort involving schools, parents, law enforcement, other community leaders, and teens themselves. For example, we see much promise in the effect of a positive climate at school in preventing problematic behaviours at school and online (see, e.g., Fraser, 1998; Freiberg, 1999; Moos, 1979; Payne, Gottfredson, & Gottfredson, 2003; Wilcox & Clayton, 2001).

Existing research has consistently identified an inverse relationship between specific components of school climate and bullying among students (e.g., Gottfredson & Gottfredson, 1985; Malecki & Demaray, 2004; Rigby, 1996; Whitney & Smith, 1993). Furthermore, one of our recent studies found that students who experienced cyberbullying (both those who were victims and those who admitted to cyberbullying others) perceived a poorer climate at their school than those who had not experienced cyberbullying (Hinduja & Patchin, 2012). Youth were asked whether they: “enjoy going to school”, “feel safe at school”, “feel that teachers at their school really try to help them succeed”, and “feel that teachers at their school care about them”. Those who admitted to cyberbullying others or who were the target of cyberbullying were less likely to agree with those statements.

As such, it seems critical for educators to develop and promote a safe and respectful school environment. In this setting, teachers must demonstrate emotional support, a warm and caring atmosphere, a strong focus on academics and learning, and a fostering of healthy self-esteem (Hinduja & Patchin, 2010). It is crucial that the school seeks to create and promote an atmosphere where certain conduct is simply not tolerated—by students and staff alike. In schools with healthy climates,
students know what is appropriate and what is not, and behave accordingly online and off.

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Commentary

Cyberbullying: The right value of the phenomenon.
Comments on the paper “Cyberbullying: An overrated phenomenon?”

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This comment will try to discuss the point raised by Olweus: is cyberbullying just one type of bullying or a distinct phenomenon and how much does it need a specific approach to be investigated? Specifically I will try to support my perspective taking into consideration five areas of investigation: definition, measurement, association between traditional bullying and cyberbullying, possible consequences and interventions.

Keywords: Cyberbullying; Bullying; Definition; Measurement; Interventions.

I am grateful to Dan Olweus because with this provocative paper he is helping all of us to reach a deeper insight into the problem of bullying and cyberbullying and to understand how these two constructs are simply two faces of the same problem.

From my side, instead of starting with the assertion “Cyberbullying: An overrated phenomenon”, I would like to start a reflection from the opposite perspective: How and to what extent might cyberbullying be underestimated if we neglect its specificity? How and to what extent can the studies on cyberbullying help us deepen the knowledge of bullying as a whole problem?

When, in 1978, Dan Olweus presented a new book on Aggression in the School: Bullies and Whipping Boys, he introduced a new subtype of aggression that was partly related to general aggression but, at the same time, showed specific characteristics. It was a new perspective on the study of aggression among young children and youths, which has been very successful in the following decades.
Nowadays virtual and electronic communication has become a major component of adolescents’ social life (Williams & Guerra, 2007). Technological tools, such as mobile and smart phones, computers, tablets and other devices provide a new type of person-to-person communication, by changing interactions from face-to-face to virtual. These tools are part of adolescents’ everyday life, they expand, strengthen and partly change communication. Several authors are studying how communication, self-presentation or friendships are changing in the online environment (Livingstone, Haddon, Görzig, & Ólafsson, 2011; Valkenburg & Peter, 2011).

Similarly, the information and communication technology (ICT) environment can also change or mark the differences between cyberbullying and traditional bullying. We need to pay attention to the recent and rapid introduction of electronic devices in our lives and its impact should be monitored by adults and researchers.

Moving from this general consideration I will try to discuss the point raised by Olweus: is cyberbullying just one type of bullying or a distinct phenomenon and how much does it need a specific approach to be investigated? I will try to support my perspective taking into consideration five areas of investigation: definition; measurement; association between traditional bullying and cyberbullying; possible consequences; and interventions

**DEFINITION**

Early studies on cyberbullying used their own definition of this phenomenon, and most of them developed in a top-down approach based on the definition of traditional bullying proposed by Dan Olweus (1993). A small number thereof have become widely accepted and are cited regularly in new publications (Belsey, 2005; Hinduja & Patchin, 2009; Smith et al., 2008; Willard, 2003). These definitions highlight some fundamental aspects of (cyber)bullying: (intentional) harm, repetition over time and a power imbalance between victim and perpetrator. Recently, these definitions have become the object of a controversy among experts and researchers: it is still unclear whether these criteria are applicable to cyberbullying. Furthermore, new criteria have been proposed such as anonymity and publicity, which seem to be specific of cyberbullying (Menesini & Nocentini, 2009; Slonje & Smith, 2008; Tokunaga, 2009).

A cross-cultural study by Nocentini et al. (2010) investigated the problem of the definition starting from the adolescents’ view of the problem. Seventy adolescents (from Italy, Spain and Germany) took part in nine focus groups. We found that the term “bullying” emerged spontaneously through all the focus groups in each country, whereas the term “cyberbullying” was spontaneously proposed only by German adolescents (“cyber-mobbing”).
Therefore, also in adolescents’ view cyberbullying is bullying, as they recognized the connection between the two phenomena. The three traditional criteria: intention, repetition and imbalance of power were reported as particularly relevant in both cases, thus confirming a common pathway; however they also mentioned new criteria such as anonymity and publicity, which are more specific to virtual domains. Although these criteria were not considered necessary to label an action as cyberbullying, they can certainly connote the context (the severity and nature of the attacks, the relationship between actor and victim and the victim’s reactions).

Another cross-cultural study, which systematically investigated the role of five definitional criteria for cyberbullying in six European countries confirmed these findings (Menesini et al., in press, 2012). These criteria (intentionality, imbalance of power, repetition, anonymity and publicity) were combined through a set of 32 scenarios, covering a range of four types of behaviours (written–verbal, visual, exclusion and impersonation). The results across countries and types of behaviour suggested a clear first dimension characterized by imbalance of power and a clear second dimension characterized by intentionality and anonymity. This shows that when adolescents evaluate a scenario as cyberbullying they consider the presence of the traditional bullying criteria (imbalance, intention) with the exception of repetition, which seems less relevant in the virtual domain. Besides, participants showed a higher probability of perceiving the situation as cyberbullying if the attack was intentional and non-anonymous and a lower probability if the attack was non-intentional and anonymous. Here again, together with the intention, the role of anonymity as a specific cyberbullying criterion has been underlined.

Given these findings, we can agree that cyberbullying should be considered under the more general definition of bullying, that it is often related to face-to-face contexts, but at the same time assuming just the broad general definition can be problematic and neglects the specificity of cyber-context.

**MEASUREMENT**

Related to the definitional issues there are also measurement issues. Research on cyberbullying is growing, but we do not know if lay definitions recognize the same characteristics of bullying proposed by scholars. From previous studies we know that cultural differences and misinterpretation are problems often associated with the definition and the global key questions on bullying (Smith, Cowie, Olafsson, & Liefooghe, 2002; Smorti, Menesini, & Smith, 2003; Vaillancourt et al., 2008). An alternative way to address the problem is starting from a multiple-item approach and seeing whether they empirically identify one or more underlying constructs.
In a study of ours (Menesini et al., 2011) we measured the frequency of cyberbullying (CB) and traditional bullying (TB) on a sample of 1,092 Italian adolescents (50.9% females). The aims were: (1) to outline the structure of the cyberbullying construct; and (2) to investigate the relative severity and discrimination of each behaviour. In this study we found a complex picture: from one side a unidimensional structure was supported but we also reported discrimination and severity characteristics in relation to different items. Specifically, we found that cyberbullying can be interpreted as a one-dimensional measure where each item lies along a continuum of severity of aggressive acts, from the least severe, such as: “silent/prank calls” and “insults on instant messaging” to the most severe acts that are the visual acts.

If our data show the adolescents’ perspective, we can see that the methodology used by Dan Olweus in the two studies seem to be partly biased by the construct of traditional bullying. In fact, after the definition of bullying, “the students respond to a global question about having been bullied in the past couple of months and to eight questions about various forms or ways of traditional bullying... covering the three main categories of verbal, physical, and indirect or relational bullying”. Only at the end of this section a question about cyberbullying with two sub-questions about mobile phone or internet has been added.

From my perspective just two questions in the context of general bullying cannot capture the complexity of this behaviour. If studying cyberbullying in isolation can be criticized, as reported by the author, here we can underline problems in the opposite direction.

Traditional bullying has been evaluated in relation to specific types of behaviours (I was called mean names, was made fun of, or teased in a hurtful way) and we know that prompting examples are relevant to recall memories and experiences of the participants. Cyberbullying has been measured by two global questions simply referring to the two channels used (mobile vs. internet).

Besides, recent studies have abandoned the old distinction between mobile and internet and have been focusing more on the different types of behaviour such as: flaming, insulting, text messaging, using pictures and videos, exclusion, appropriation of personal information and passwords. This is also related to the evolution of ICT that nowadays offers a combination of different online activities and several languages with the same applications (see social networks which offer: e-mail, photos, videos and instant messaging).

Although Olweus’ considerations are relevant and make us think about the nature of our constructs, in my view we need to use similar measures with balanced definitions of both types of bullying (cyber and traditional) and balanced items which can describe the two phenomena at the same level.

In relation to the prevalence estimation, the findings in this paper are based only on the figures of two major studies. However, there has been a lot of debate on the issue of whether cyberbullying is just a new face of
something old or if there are reasons to consider it as an additional type of violence. Several studies have been conducted to understand both faces of bullying by focusing on their similarities, differences and relationships. As reported by Kiriakidis and Kavoura (2010) we should now recognize that cyberbullying is a real and existing phenomenon, rather widespread among young people. The estimation of prevalence varies a lot in relation to the definition of the problem and to the measure used and this probably can be extended also to Olweus’ findings.

For instance, Ybarra and Mitchell (2007), in a telephone survey of 1,498 internet users (10–17 years old) found that 19% of the adolescents had been involved in cyberbullying either as cyberbullies or cybervictims in the previous year. Patchin and Hinduja (2006) in a survey conducted through the internet found that 11% of respondents identified themselves as cyberbullies, 29% reported being cybervictims and 47% had witnessed cyberbullying. Usually, estimations are higher if the sample is selected online and lower if based on a school sample.

Kowalski and Limber (2007), in a survey of 3,767 middle-school students of grades 6 to 8, found that 11% were cybervictims, 7% were cyberbullies/victims, 4% were cyberbullies while 78% had no experience of any form of cyberbullying. In the UK, Smith et al. (2008) found that 16.7% of their sample had been cyberbullied.

In a study of ours (Menesini, Calussi, & Nocentini, 2012) on a school sample of 1,092 Italian adolescents, we found a presence ranging from 7.6% to 5.1% with a high frequency threshold (from two or three times a month to always), whereas the range was much wider in the case of less frequent behaviours.

Although there are differences across studies, some conclusions can be drawn. Specifically, all studies show that cyberbullying is a new phenomenon existing among the “always-on generation”. Scholars need to recognize the specificity of the problem and the possible effects cyberbullying may have on the health of young people and of their families and schools.

DIFFERENCES AND SIMILARITIES BETWEEN TRADITIONAL AND CYBERBULLYING

Cyberbullying and traditional bullying are clearly different in relation to several characteristics, such as: the absence of physical strength in cyberbullying (Kiriakidis & Kavoura, 2010; Tokunaga, 2009); the lower level of awareness of the victim’s distress (Kowalski & Limber, 2007); the anonymity of the attack, the pervasive nature of cyber-attack, which can occur every time and everywhere and finally the absence of fear in cyberbullies, who often are less aware of the consequences of their behaviours (Raskauskas & Stotlz, 2007).
At the same time they also share considerable overlap in their core motivations. Individuals who cyberbully others wish to inflict harm on their targets and execute a series of calculated behaviours to cause them distress. In terms of empirical findings, Williams and Guerra (2007) found a correlation of .66 between physical bullying and cyberbullying and a correlation of .87 between verbal bullying and cyberbullying.

Olweus in this paper reported an overlap of roles in face-to-face and online domains of 88% for bullies and victims in the USA sample and higher than 90% in the Oslo sample. In a study of ours on school-based population we found .71 for bullying and .57 for victimization (Menesini et al., 2012).

Other studies underlined the value of considering cyber- and traditional bullying separately in research. For instance Ybarra Diener-West and Leaf (2007) found that 64% of children cyberbullied were not bullied at school and this can make us conclude that if we start from a school population we might expect a higher level of overlap between traditional and cyberbullying, whereas the reverse is true for a sample recruited online.

POSSIBLE CONSEQUENCES OF CYBERBULLYING AND CYBER-VICTIMIZATION

There are several reasons to consider the two types of bullying separately, mostly based on their effects on psychological well-being. The studies conducted by Olweus mainly report effects on self-esteem: this is only one of the possible negative symptoms that have to be considered; however, other studies have demonstrated the relevance of negative psychological symptoms. In a chapter of ours (Menesini et al., 2012), in order to evaluate the unique and multivariate effects of the two bullying contexts on health symptoms, we tested three regression models (unique, additive and interactive). With regard to the multivariate effect of bullying and victimization in traditional and cyber-contexts, we found strong evidence in support of additive effects. For externalizing symptoms, additive effects were found for both aggressive and delinquent behaviours in males. Similar patterns of additive effects were found for internalizing symptoms, specifically for somatic complaints and anxious-depressive symptoms we found a significant additive effect of both bullying and cyberbullying in males and females.

Similar data have been found by other studies that controlled for the co-occurrence of both role in face-to-face and virtual domains (Dooley, Pyzalski, & Cross, 2009; Gradinger, Strohmeier, & Spiel, 2009).

Similarly to Olweus, all these studies found that the number of pure cyber-victims and pure cyberbullies was very low but contrary to Olweus’ findings on self-esteem, they illustrate the specific contribution of each behaviour in
relation to possible outcomes. Although there is a strong association between traditional bullying and cyberbullying, each phenomenon showed a differential impact on health and psychological symptoms. The use of both constructs and the measures of both roles can help us to better investigate the impact of different types of attacks on the victims and perpetrators.

INTERVENTIONS

Given the results of research it becomes clear that schools and teachers should focus on both sides of the problem. The challenge is to develop projects that work on both levels: face-to-face and virtual contexts. The Salmivalli project is an example of this approach and the peer-led models we developed in Italy are another example (Menesini, Nocentini, & Palladino, in press).

Cyberbullying prevention does not simply consist of guidelines for a safer use of ICT but also includes awareness activities (video, forum discussion, social networks groups) that can be done also in the online context. To some degree the use of ICT can help communication and diffusion of information in the school and in the community.

From our experience we think that working within the virtual domain can be a promising approach to address both face-to-face and cyberbullying especially if the intervention is school based and takes into consideration both social environments.

In our case, across three studies we developed a peer-education scheme against traditional bullying and cyberbullying, involving students, teachers and schools in online and offline interventions (Menesini & Nocentini, 2012; Palladino, Nocentini, & Menesini, in press). Results showed the benefits of a reduction of traditional bullying and victimization, and of cyberbullying and cyber-victimization together with an increase of coping strategies and self-efficacy in peer educators and in the rest of the class.

CONCLUSION

I do hope these considerations can add valuable reasons to sustain a complementary approach instead of a counterview approach. I agree with the fact that cyberbullying is a specific expression of bullying with which it shares several characteristics, but we also need to consider the specificity of ICT and in particular the type of communication that can take place in the virtual domain. Communication in ICT contexts is indeed easier, faster, pervasive and partly different from communication in a face-to-face context. Therefore I recommend caution; recognizing the specific characteristics of the attack when it is perpetrated or suffered online as compared to the conventional context.
Furthermore I think that this new perspective on bullying from the virtual domain can shed new light on bullying problems and, in particular, can help to understand the meaning of its various expressions, such as the verbal, physical, social and virtual attacks. In this regard, a complementary and analytic approach should pay attention to different types of behaviours (aspects often neglected in the literature) and promote further understanding of the phenomenon not only in terms of social and dynamic motivation (Salmivalli, 2010) but also in relation to the meaning that different behaviours may have on the victim and other potential bystanders.

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Commentary

Cyberbullying: Challenges and opportunities for a research program—A response to Olweus (2012)

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Olweus raises some important issues, but I argue that he underestimates the impact of cyberbullying on a research programme that he has done so much to promote. Cyberbullying has a number of distinctive features that differentiate it from traditional bullying. Cyberbullying provides a new challenge to the hard core (definitional criteria separating bullying from aggression). It also provides opportunities, in terms of a broader disciplinary base, greater permeability of age and context barriers, and new theoretical possibilities.

Keywords: Bully; Cyber; Victim.

I largely agree with three substantive points made by Olweus (2012, this issue), and, indeed, these points have been made in other reviews (Smith, 2012; Tokunaga, 2010). First, cyberbullying (CB; or online bullying) generally appears to be considerably less frequent than traditional (TB; or offline) bullying; it perhaps makes up one quarter to one third of all bullying, as indeed the figures in his article suggest. Second, there is a lot of overlap, specifically with most studies finding that the majority of those involved in CB are also involved in TB. A proviso here is that the overlap is not complete, so that there will be some pupils only or mainly involved as cyberbullies or victims. Third, there is not much evidence that CB has been increasing in recent years. Here there are two provisos. One is that obviously CB has increased, most noticeably over the period 2000–2005 in Western countries, with the spread of mobile phone technology and internet use among young people (Rideout, Foehr, & Roberts, 2010); and then
maybe levelling off, as documented in England by Rivers and Noret (2010). A second proviso is that, in many countries, TB rates have fallen over the last 10–20 years (see Rigby & Smith, 2011, for a review); although the evidence is limited, this decrease (probably due to intervention efforts in many countries) contrasts somewhat with a lack of decrease in CB. Another comment on all three points is that as uses of cyberspace expand so do opportunities for abuse (e.g., on social networking sites, twitter), so statements about the incidence of cyberbullying are especially provisional.

However, these three points of agreement, while important, ignore important differences between TB and CB. I recently listed seven of these (Smith, 2012):

1. CB depends on some degree of technological expertise;
2. It is primarily indirect rather than face-to-face, and may be anonymous;
3. The perpetrator does not usually see the victim’s reaction, at least in the short term;
4. The variety of bystander roles in CB is more complex than in most TB (the bystander may be with the perpetrator when an act is sent or posted; with the victim when it is received; or with neither, when receiving the message or visiting the relevant internet site);
5. One motive for TB is thought to be the status gained by showing (abusive) power over others, in front of witnesses, but the perpetrator will often lack this in CB;
6. The breadth of the potential audience is increased, as CB can reach particularly large audiences in a peer group compared with the small groups that are the usual audience in TB; and
7. It is difficult to escape from CB, as the victim may be sent messages to their mobile or computer, or access nasty website comments, wherever they are.

These are not absolute differences (Pyzalski, 2011), but they may nevertheless affect motives for perpetration, and impact on victims.

Olweus does discuss some of the research on relative impact, which indeed is expanding rapidly. Despite the differences between TB and CB, what does appear to be true so far is that the negative effects of CB per se are not usually any worse than the negative effects of TB per se; though this does depend on the type of CB (or TB) involved. However Olweus goes further, to tentatively conclude that “if the student is exposed to both traditional and cyberbullying, the additional impact of cyberbullying seems to be negligible”. But some research contradicts this. For example,
Gradinger, Strohmeier, and Spiel (2009, Table 5) found that depressive symptoms in victims of both TB and CB was significantly greater than victims of either form alone. Similarly, Brighi et al. (2012) found significantly poorer self-esteem and higher loneliness scores, in poly-victims compared to victims of TB or CB alone.

I think the more interesting aspects regarding CB are the challenges and opportunities that it brings to the research programme on bullying (Smith, 2010, 2011). In describing the now very extensive research on bullying (especially school bullying) as a research programme (in the sense of Lakatos, 1970), I take the hard core to be the distinction of bullying as a separate category of aggressive behaviour, differentiated by the criteria of repetition and imbalance of power (Olweus, 1999). This has not been without critics (e.g., Finkelhor, Turner, & Hamby, 2012), but has been widely accepted. One widely cited definition is that CB is “an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself” (Smith et al., 2008), which is a straightforward adaptation of the Olweus definition of TB, for CB. However, the concepts of repetition and imbalance of power are more difficult to operationalize in the cyber domain. A single act by an aggressor (such as posting a nasty website comment) may be seen, commented on, and forwarded by many others. This constitutes a repetition, but not a repetition necessarily involving the original perpetrator. The concept of imbalance of power also needs a rethink in cyberspace, as clearly it does not refer to physical strength or numerical strength; indeed the “revenge of the nerds” hypothesis (see Ybarra & Mitchell, 2004) supposes that a traditionally weaker victim may seek revenge on his or her tormentors, by being a cyberbully. These definitional issues are being debated vigorously (e.g., Dooley, Pyszalski, & Cross, 2009; Vandebosch & Van Cleemput, 2008), and it is possible to defend the traditional criteria in the case of CB (Smith, del Barrio, & Tokunaga, 2013), but nevertheless there is clearly a renewed challenge in this area.

There are nonetheless important opportunities arising from research in CB. I have argued (Smith, 2010) that the TB research programme had some noticeable limitations, including a disciplinary narrowness (mostly developmental psychologists, with a predominant focus on individuals in bullying, and their characteristics), a great reliance on quantitative studies, a perspective that has been rather isolated both contextually and developmentally, and a lack of use made of explanatory theories. Perhaps CB research can advance beyond some of these limitations and reinvigorate the research programme.

First, there is a broader disciplinary basis of research. Although psychologists are doing much of the research in CB, there is a strong input from other disciplines such as sociology, media studies, public health, law,
and other social sciences. Expertise from social psychologists and sociologists may be useful in understanding the more complex bystander roles in CB. Expertise from lawyers is important, as legal rights and responsibilities are less well understood and, indeed, less well worked out in terms of case law, than for TB.

Second, there appears to be a greater combination of qualitative and quantitative approaches in CB. This may follow from the disciplinary breadth, and substantial input from qualitative studies is especially beneficial in exploring what is a new and changing area of study.

Third, the nature of the CB phenomenon inevitably directs us to broader contextual and developmental aspects. Research in TB has focused strongly on the school context. Contextually, we know that even for school-aged children, most CB is not experienced in school. Both the perpetration, the witnessing, and the reception of CB acts will often be in homes, clubs, and outside areas. Developmentally, CB may show more age permeability than TB. TB appears to vary substantially between the school setting and the workplace setting; but CB occurs in cyberspace, whatever age group is taking part (Ševčíková & Šmahel, 2009). In that sense, developmental changes in CB may be less confounded by context changes than is the case for TB.

Fourth, there are new theoretical possibilities. Psychologically, we can explore and contrast the motives for CB, compared to TB. These are probably different to some extent, due to lack of face-to-face contact and seeing the victim’s response, different bystander characteristics, and the relative anonymity of the aggressor in CB. We also need to look at process of change much more seriously. TB has probably not changed greatly for decades. But historical changes are much more rapid in CB; even on a year-to-year basis, fashions in technology use change, going beyond text messages and e-mails to an increase in instant messaging and more recently an upsurge in social networking sites. Historical changes will interact with cultural differences. There do appear to be important national or cultural differences in CB (Li, Cross & Smith, 2012); for example rates appear to be relatively low in South Korea, Japan, and Finland, despite high technological take-up in these countries. To explain these differences we will need to consider the educational systems, and local and national anti-bullying and CB policies; the nature of the society; and, of course, patterns of availability and use of new technologies.

Olweus deserves great credit for substantially initiating the programme of research on school bullying, which has become very extensive and had such impact in practical actions. I agree with many of the specific points Olweus makes concerning CB. But I believe he underestimates the impact of CB on this research programme. On the negative side, it might give new threats to the hard core of the programme. On the positive side, its new features also
provide new opportunities for developing methodologies, cross-disciplinary expertise, and theoretical understanding.

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Commentary

Comments on cyberbullying article: A rejoinder

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In this article, I discuss many of the points raised in the thoughtful comments by Hinduja and Patchin (2012, this issue), Menesini (2012, this issue), and Smith (2012, this issue) on my original article “Cyberbullying: An overrated phenomenon” (Olweus, 2012, this issue). After having seriously considered the arguments of my commentators, I still think there is strong empirical evidence for my original position—supported by one or more but not all of my commentators—that cyberbullying is a basically low-frequent phenomenon and that there has not occurred a marked increase in the prevalence rates of cyberbullying over the past five or six years. With regard to the possible negative effects of cyberbullying, over and above the effects of traditional bullying, I note with appreciation that this issue has received some attention in the recent research literature but I also make a call for more systematic consideration of potential confounders in such studies. A good deal of the discussion in the comments and the current article concerned the issue of whether cyberbullying should be regarded as a form of bullying on a par with traditional forms of bullying or if it is distinct enough to be considered a partly separate phenomenon or dimension. I conclude by arguing that in order for research on cyberbullying to proceed in a systematic and fruitful way, it is necessary to place it in proper context (along with traditional bullying) and to communicate a somewhat more realistic picture of its prevalence and nature.

Keywords: Traditional bullying; Cyberbullies; Cybervictims; Effects; Confounders.

First, I would like to thank the journal’s editor, Willem Koops, for inviting me to contribute an article on cyberbullying and for the opportunity to discuss the thoughtful comments by four very competent contributors to the field of cyberbullying research: Ersilia Menesini from Italy, Sameer Hinduja...
and Justin Patchin from the USA, and Peter Smith from the UK. I also want to thank the commentators for generous comments about my own work.

In my discussion of the points raised in the three commentaries, I will roughly follow the structure used in my original article. For space limitations and reasons of readability, it will of course not be possible to comment on all points. I hope, however, that the commentators will feel that I have at least briefly touched upon most of the points of possible disagreement.

**IS CYBERBULLYING REALLY A LOW-FREQUENCY PHENOMENON?**

On this point I note first, that Peter Smith (Smith, 2012, this issue) is largely in agreement with my findings. The prevalence data reported by Menesini (2012, this issue) seem to indicate clearly higher percentages than those obtained in my samples. There are some problems with these data, however, since one of them concerns internet harassment rather than bullying (Ybara & Mitchell, 2007) and two other studies (Kowalsky & Limber, 2007; Menesini, Calussi, & Nocentini, 2012) did not use identical/comparable criteria for the classification of cyber-victims (and cyberbullies). In the study by Menesini et al. (2012) about 6% of the students had been exposed to cyberbullying *2 or 3 times per month or more often* in the past couple of months whereas the percentage of cyber-victims in the Kowalsky and Limber study was about twice as high. As is clear from the latter article, however, Kowalsky and Limber used the *once or twice or more often* criterion for classification and when they used the same criterion as Menesini and colleagues (as reported in Kowalsky, Limber, & Agatston, 2008, p. 75), the percentage of cyber-victims was 6 (and the percentage of cyberbullies was 2). Accordingly, with the higher threshold for classification—and the one that is usually recommended in bullying research for a number of reasons (see, e.g., Solberg & Olweus, 2003)—the results are almost identical and not very far away from the percentages presented in my article.

These results underscore the obvious fact that, in order to produce meaningful and comparable prevalence estimates, researchers must study reasonably similar phenomena (typically delineated by means of a definition) and identical or similar criteria for classification including measurement properties such as response alternatives and length of the reference period or time frame. This consideration becomes very salient also when we take a closer look at the comments and data reported by Hinduja and Patchin (2012, this issue), who state very squarely “Olweus’ findings... are simply out of line with the weight of the available evidence. We are not aware of any research that has found rates that low” (p. 541).

As one piece of evidence for this position, Hinduja and Patchin cite the results of a recent self-report survey by Hinduja and Patchin (2012) in which some 20% of the sample of 4,400 randomly selected 11- to 18-year-olds had been
cyber-victims. A similar percentage admitted to cyberbullying others. These results are of course much higher than the figures obtained in my samples. This very marked discrepancy gets a natural explanation, however, when one observes that the Hinduja and Patchin data concern life time prevalence (ever cyberbullied, which probably means a reference period of some 10 years for cyberbullying) and not period prevalence with a time frame of the past couple of months (see, e.g., Olweus, 1989, about different prevalence estimates). Although life-time prevalence data may be appropriate and useful in some situations, they are probably of limited value in the present context. In particular, they do not in any way disprove the low period prevalence rates reported in my article. And, as implicated above, “like must be compared with like”.

In addition, I am surprised to learn that Hinduja and Patchin are unaware of studies that have reported low prevalence rates for cyberbullying. In a recent volume edited by Li, Cross, and Smith (2012), there are a number of chapters with research from Austria, England, Italy, Spain, Finland, Australia and the USA which all report quite low prevalence rates, very much in line with the figures in my article. A good deal of this research has also been available in earlier publications.

In this context, I would also like to briefly comment on the concern raised by Menesini that using only one or two questions about cyberbullying and a greater number of questions about traditional bullying might bias downward the prevalence estimates of cyberbullying. I agree with her that “just two questions in the context of general bullying cannot capture the complexity of this [cyberbullying] behaviour” (Menesini, 2012, this issue, p. 547). Certainly, but here the focus is on overall prevalence and a global question about cyberbullying via mobile phone or the internet can very likely give a good overall estimate of cyberbullying that is comparable to similar global estimates of traditional bullying, such as verbal bullying in my article. In addition, we have in other studies made analyses of the prevalence of more specific forms or channels of cyberbullying such as instant messaging, chat rooms, websites, etc. Whatever method or threshold for classification is used, it is clear that there are many more children and youth involved in traditional forms of bullying than in cyberbullying.


As evident from the time series data presented in my article, I found no indications of such a trend in the two sets of large-scale data, one covering the period from 2007 to 2010 and the other from 2006 to 2010.
Peter Smith largely agrees that “there is not much evidence that CB [cyberbullying] is increasing in recent years” (Smith, 2012, this issue, p. 553). Hinduja and Patchin also seem to agree with such an account stating that “… there is no cross-sectional or longitudinal research that we have reviewed which portrays such a tendency” (p. 541). He goes further, however, and generally seems to doubt that researchers have drawn such conclusions. Well, let us take a look at Hinduja and Patchin’s own publications to begin with. In their book (Hinduja & Patchin, 2009), there are two graphs (p. 50) with prevalence data (with probably rather different classification criteria) on cyber-victims and cyberbullies from a number of different, mostly cross-sectional studies covering the period from 2000 to 2009. Three of the included studies were conducted by the two book authors. Both graphs have been provided with trend lines, which indicate linear-increasing trends over time. The text in the book states: “Chart 3.2 and 3.3 also include trend lines that clearly illustrate that cyberbullying victimization and offending have increased over the years” (Hinduja & Patchin, 2009, p. 49).

The characterization “increased dramatically” was not used in the just-cited text but it can be found in the introduction to a recent article, focusing on cyber abuse (Mishna, Cook, Saini, Wu, & MacFaddon, 2011). “These findings have been supported by studies around the world, suggesting that the prevalence of cyber abuse of children and youth is growing dramatically” (p. 5). This article was published in 2011 but all 11 articles the authors refer to in support of their conclusion were published before 2005 and without any time period qualifications.

I think one can conclude that the participants in this discussion (possibly except Menesini who did not explicitly comment on this issue) are largely in agreement that there has not occurred a marked increase in the prevalence rates of cyberbullying over the past five or six years (but very likely from, say, 2000 to 2005, as mentioned by Smith, 2012, this issue). It is further clear that statements about increasing trends have been made also by researchers. In addition, I would like to emphasize that the trend results presented in my article were obtained with very large samples from two different countries, Norway and the USA, respectively, and were based on completely different designs, one following the same 41 schools and the other measuring different cohorts of schools, in both cases over a substantial period over time. The consistency of the results was remarkable in my view.

**WHAT ABOUT THE DEGREE OF OVERLAP OF TRADITIONAL BULLYING WITH CYBERBULLYING AND THE POSSIBILITY OF CYBERBULLYING CREATING NEW VICTIMS AND BULLIES?**

The claim that the advent of the new information and communication technology (ICT) has created new victims and perpetrators of bullying is
based on the fact that if there is, in principle, less than perfect overlap of youth involved in cyberbullying with youth engaged in traditional bullying, this will result in new victims and perpetrators of bullying (unless there is a negative relation between traditional and cyberbullying, which no one has found or proposed, so far as I know). Accordingly, this is very much an issue concerning the degree of overlap between the two categories of bullying forms.

There are quite a number of publications on this issue and almost all of them agree that there is a good deal of overlap. But the degree of overlap varies substantially from about 50% (e.g., Ybarra & Mitchell, 2004) over some 67% (e.g., Hinduja & Patchin, 2012, this issue) to 75 to 90% (e.g., Olweus, 2012; Salmivalli & Pöyhönen, 2012, p. 64; Smith et al., 2008, Table 2, p. 380). It certainly makes a difference if only 10%, rather than 50%, of the cyber-victims are exposed to traditional bullying and become, in a sense, “new” or additional victims of bullying. And it is of course important to find out, for theoretical reasons as well as for purposes of intervention, what degree of overlap actually exists between these two categories of bullying under various conditions and if different results can be explained in meaningful ways. Highly discrepant and unpredictable results will make it difficult to gradually build a useful and coherent body of knowledge of the phenomena in focus (Tokunaga, 2010). Here, the importance of using comparable measurement techniques and classification criteria must be emphasized once more.

**ARE THERE NEGATIVE EFFECTS OF CYBERBULLYING AND HOW DO WE FIND OUT?**

The main problem is that there have been lots of reports in the research literature and the media about the negative effects of being exposed to cyberbullying—without taking possibly concurrent victimization in “traditional” ways into account. Since a majority or maybe most cyberbullied children are also exposed to traditional bullying, as discussed in the last section, it is difficult to know if, and to what extent, the reported negative effects actually are a consequence of cyberbullying, over and above the well-documented negative effects of traditional bullying. In my article, I presented two sets of analyses with self-esteem as the outcome variable and I concluded—tentatively—that the issue of possible negative effects of being cyber bullied may be “context specific”: If a student was bullied only (or mainly) via electronic means, this seemed to have a negative effect on his or her psychosocial adjustment or well-being. If the student was exposed to both traditional (to some non-negligible degree) and cyberbullying, however, the additional effect of cyberbullying seemed to be trivial.

The latter part of this conclusion was contradicted by Peter Smith who referred to two studies (Brighi et al., 2012; Gradinger, Strohmeier, & Spiel, ...
2009), which have reported that the negative effects in terms of psychosocial adjustment “in victims of both traditional and cyberbullying was significantly greater than victims of either form alone” (Smith, 2012, this issue, p. 555). In addition, Ersilia Menesini (2012, this issue) referred in her comments to a study of her own (Menesini et al., 2012) with similar results described in the same volume as where the Brighi et al. study can be found. I am glad to have been alerted to these interesting studies and greatly appreciate the fact that the issue I point to, has actually been seriously considered in several recent publications. I also note with satisfaction that the conclusion reached by Cristiane Spiel and her colleagues in 2009 was very similar to my first methodological recommendation (Olweus, 2012, this issue). The Austrian team concluded: “Our research demonstrates how important it is to consider both traditional and cyberforms of bullying and victimization simultaneously to be able to appropriately identify risk groups for poor adjustment” (Gradinger et al., 2009, p. 212).

Although this is much appreciated, I think it is necessary to make a cautious reservation with regard to a possible conclusion on the substantive issue, that concerning the negative effects of cyber victimization over and above traditional victimization. The basis for this reservation is the fact that the addition of cyber-victimization to traditional victimization did not contribute to poorer self-esteem in my regression analyses with the group of combined traditional and cyberbullied students (Olweus, 2012, this issue). In these analyses, I also discovered that the combined victim group had been exposed to a greater number of traditional victimization forms than the pure traditional victim group. So, when regression analyses were performed with all four groups (non-involved, pure cyber-victims, pure traditional victims, and combined traditional and cyber-victims) with number of traditional forms of victimization as a covariate, the difference between the combined group and the pure traditional group was no longer significant.

The basic message here is that in order to safely conclude that the addition of cyber-victimization to traditional victimization leads to additional negative effects, one must make sure that the groups compared do not differ with regard to other variables that might affect the outcome variable—such as the number of forms of traditional victimization the subjects have been exposed to, as in my analysis. Although the three studies mentioned all were carefully conducted, analysed, and represent important steps in the right direction, none of them seemed to consider possible alternative variables that could be confounded with the fourfold classification of the participants in their studies. This may well turn out to be a minor problem but I think we have to be cautious at this point in time about drawing strong substantive conclusions. On this point, I do not give particular weight to my own findings, which I present as preliminary and which are clearly limited by the fact that they only concern one outcome
variable, poor self-esteem, as correctly pointed out by Menesini. And my conclusion was that: “This issue obviously needs to be the focus of several additional studies and approaches.” (Olweus, 2012, this issue, p. 534). Here I would like to add the caveat that it is important to pay more attention to possible confounding variables in such studies.

In this context, it is also interesting to note that the pure cyber-victim group in the above-mentioned Brighi et al. study on several dimensions of self-esteem related to areas such as peers and sports, actually had as good values as the non-involved group. These results suggest that some forms of cyberbullying may have limited or no negative effect on the recipient, as also suggested by the study of Smith et al. (2008), for example.

**SOME ADDITIONAL POINTS**

Menesini and Smith underscore in their comments, as do Hinduja and Patchin in their book, that there are a number of differences between traditional bullying and cyberbullying. At the same time, there are also some fundamental similarities and a basic issue is the following, as formulated by Menesini (2012, this issue, p. 545): “Is cyberbullying just one type of bullying or a distinct phenomenon and how much does it need a specific approach to be investigated?”

This is certainly a key issue, which raises a number of research questions some of which have no clear-cut answers at the present time. To what extent can the traditional criteria of bullying, intentionality (some) repetition, and power imbalance, be applied to cyberbullying? Do cyber-victimization/bullying items differ in important ways from traditional victimization/bullying items measuring physical, verbal and indirect/relational forms of bullying? Do cyber-victimization/bullying items and other victimization/bullying items go together in one factor and, in case, have roughly similar loadings? Do cyber-victimization/bullying variables relate in the same way as traditional victimization/bullying variables to psychosocial adjustment dimensions they can be expected to be associated with?

In my article, I gave some preliminary answers with regard to dimensionality and I also reported a few analyses in which I compared the relations of cyber- and traditional bullying items with self-esteem. Somewhat to my surprise, I found that “cyberbullying items function in roughly the same way as items on traditional bullying” (Olweus, 2012, this issue, p. 532). I hastened to add, however, that: “More research on this issue is clearly needed” (Olweus, 2012, this issue, p. 532).

From the theoretical perspective of parsimony or simplicity, such a conclusion if valid would of course be welcome, implying that these on the surface fairly different behaviours can be subsumed under the same conceptual umbrella or be seen as belonging to the same class of behaviour.
This would probably mean that several of the noted differences between cyber-victimization and traditional victimization are of relatively little importance from the perspective of the recipient. In this context, one must also raise the question: Are the differences between various aspects or forms of cyber-victimization/bullying and traditional victimization/bullying greater than, for example, between various aspects of physical victimization/bullying and other forms of traditional victimization/bullying? I presume that an examination of the overlap between, for example, physical bullying with indirect forms of bullying would produce results that are fairly similar to those observed with regard to cyberbullying versus traditional bullying. A good deal of overlap but also a relatively small group of students who are bullied only by physical means and another group that is bullied only by indirect means. Would such a result lead to the conclusion that there are so great differences between physical and indirect forms of bullying that they must be regarded as (partly) distinct phenomena?

On the other hand, little is gained by trying to force phenomena with markedly different characteristics under the same conceptual umbrella and such attempts may even hinder progress in research and intervention. In any case, there are some clear differences between cyberbullying and traditional bullying with regard to communication forms, context, “bystander” roles, and other aspects. As alluded to above, some of them may not make much of a difference for the reactions of those who are exposed, others may have considerable impact. At the moment, our knowledge base on such issues is limited and awaits more systematic research efforts.

As also suggested by Smith in one of his final comments (Smith, 2012, this issue) research on cyberbullying may potentially enrich theorizing and research on traditional bullying. It can be added that from a prevention/intervention perspective, attention to cyberbullying cases can lead to a disclosure of what actually goes on in terms of traditional bullying in the school context. In that context, I also note that none of the commentators made specific comments on my system-level proposal for the reduction and prevention of cyberbullying. It has not been empirically tested, but I think it would be worth a serious try.

FINAL WORD

As a final point, I would like to reiterate that the intention of my writing the original article was not to downplay or trivialize cyberbullying. However, in order for research on cyberbullying to proceed in a systematic and fruitful way I think it is necessary to place it in proper context (along with traditional bullying) and to communicate a somewhat more realistic picture of its prevalence and nature, at least in some quarters. It is my hope that my
article and the ensuing discussion can make some contribution in this direction.

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