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Participant roles in peer-victimization among young children in South Korea: peer-, self-, and teacher-nominations

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Review

Peer-victimisation in South Korea

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Participant roles in peer-victimization among young children in South Korea: peer-, self-, and teacher-nominations

Seung-ha Lee

Yeungnam University

Peter K Smith

Goldsmiths, University of London

Claire P Monks

University of Greenwich

Dr. Seungha Lee (Corresponding author)

Department of Early Childhood Education, Yeungnam University, 280 Daehak-ro, Gyeongsan-si, Gyeongsangbuk-do, South Korea

Post code: 712-749

Phone: + 82) 53. 810.2895. Fax: +82) 53. 810. 4674. Email: seungha94@gmail.com

Prof. Peter K. Smith

Department of Psychology, Goldsmiths, University of London, New Cross, London. SE14 6NW, U.K. Phone: +44 (0)20 7919 7898. Fax: +44 (0)20 7919 7873. Email: pss01pks@gold.ac.uk

Dr. Claire P. Monks

Department of Psychology, Social Work and Counselling, University of Greenwich, Avery Hill, London. SE9 2UG, U.K. Phone: +44 (0)20 8331 9584, Fax: +44 (0)20 8331 9106,

Email: c.p.monks@greenwich.ac.uk

Abstract

This study explored participant roles in aggressive behavior among 95 children aged five to seven years, in a collectivistic culture, South Korea. Using a short-term longitudinal design, three types of nomination (peer, self, and teacher) were obtained for four participant roles (aggressor, victim, defender-stop, and defender-tell) and for four types of aggression (physical, verbal, social exclusion and rumor spreading). Assessments were made of stability of participant roles over time; inter-rater concordance among informants; discriminability; and relationships with sex, and likeability. Children tended to report themselves as victim and their peers as aggressors, especially for social exclusion. Nominations for aggressor showed highest stability over time and inter-rater concordance. Social exclusion showed different characteristics from other types of aggressive behavior in terms of its frequency and inter-rater concordance of role nominations. The type of defender (defender-stop or defender-tell) had different correlates with likeability. Findings are discussed in relation to different perspectives on social exclusion, and the defender role. Some different findings related specifically to social exclusion may be related to the particular nature of aggression or *wang-ta* in South Korea.

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4 56 **Participant roles in peer-victimization among young children in South Korea: peer,**
5 57 **self, and teacher nominations**
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9 59 Studies of the origins of aggressive and peer victimization behavior in young children,
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11 60 under seven years, have shown that the participant roles of aggressor, victim and defender
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13 61 can be identified with reasonable levels of inter-rater concordance and reliability. Such
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15 62 studies have primarily been carried out in western countries (Kirves & Sajaniemi, 2012;
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17 63 Monks & Smith, 2010; Monks, Smith, & Swettenham, 2003; Perren & Alsaker, 2006;
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19 64 Vlachou, Andreou, Botsoglou & Didaskalou, 2011). Here, we report findings from young
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21 65 children in South Korea. Previous studies on peer victimization or *wang-ta* in South Korea
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23 66 have primarily been on school-age children eight years old and above, and have noted
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25 67 distinctive features such as an emphasis on social exclusion (Koo, Kwak & Smith, 2008).
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29 68 Aggressive behavior can be physical, verbal, or relational, and direct or indirect.
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31 69 Relational aggression damages or threatens to damage relationships (Crick & Grotpeter,
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33 70 1995). Indirect aggression is performed via third party(ies) rather than face-to-face
34
35 71 (Björkqvist, 2001). Relational and indirect aggression can be difficult to disentangle
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37 72 (Archer & Coyne, 2005); relational aggression is frequently carried out indirectly. In the
38
39 73 last decade cyber aggression has become a prevalent phenomenon, but (at the time of this
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41 74 study) not among children below seven years (Kowalski, Giumetti, Schroeder, &
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43 75 Lattanner, 2014).
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47 76 In older children, peer victimization is often considered as bullying, usually
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49 77 characterized as aggressive behavior that involves repetition and an imbalance of power
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51 78 (Olweus, 1993; Smith, 2014). Young children have a different understanding of bullying
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53 79 from older children; they have a broader concept that tends to include all kinds of
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55 80 aggressive behavior, irrespective of imbalance of power or repetition (Monks & Smith,
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2010); for this reason the term bullying-like behavior is often used for the preschool and infant school age range. In this study, we use the term peer-victimization, and examine roles in this between five to seven years. We particularly examine some role characteristics: short-term stability over time, inter-rater concordance among informants, discriminability, relations between aggressor and victim roles by type of aggression; and role relations with sex and likeability. We also examine the value of differentiating the defender role into two distinct aspects, which we label defender-stop and defender-tell.

Peer-victimization in South Korea

There are several terms to indicate peer-victimization in South Korea; *hakkyo-pokryuk* (school violence), *gipdan-ttadolim* (group isolation), *gipdan-gorophim* (group harassment or group bullying), and *wang-ta*. These terms are often used interchangeably, although there are some differences in terms of the type of aggression each term most represents (Koo, 2005; Lee, Smith & Monks, 2012).

Among these terms, *wang-ta* has been regarded as that most closely corresponding to peer-victimization, and to bullying in older children, in western cultures. It is a slang term popularized by pupils in the late 1990s, which mainly focuses on excluding and harassing one person by group aggressive acts (Lee et al., 2012). Like the term *bully*, *wang-ta* can be used as a verb (to *wang-ta* someone) and as a noun (a *wang-ta* as a victim). In Korean *wang* means big or king, and *ta* is a short version of *ttadolim* (isolation), therefore the meaning of the term *wang-ta* has a root of social exclusion.

Koo et al. (2008) carried out a survey of *wang-ta* with 11 to 16 year old pupils from randomly selected schools across five main regions of South Korea. Altogether 5.8% of pupils reported receiving *wang-ta* and 10.2% reported that they had done *wang-ta* to other peers, more than once or twice in the last term. Unlike in western countries, in South Korea the number of bullies was larger than the number of victims, and pupils were often bullied

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4 106 by those from higher grades. The most cited forms for both receiving and perpetrating *wang-*
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6 107 *ta* were verbal, followed by relational and physical.

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9 108 The public labeling of a victimized person (as a *wang-ta*) is an unusual and possibly
10
11 109 unique phenomenon in the study of school bullying. Lee et al. (2012) reported that from the
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13 110 age of four or five years onwards, South Korean children and adults were aware of what
14
15 111 *wang-ta* meant, and although they generally saw it as wrong and considered it to be a bad
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17 112 behavior, they often blamed the victimized pupil. This may be related to collectivistic
18
19 113 cultural beliefs; South Korea is seen as a strongly collectivistic society (Hofstede & Hofstede,
20
21 114 2005). In collectivistic cultures, group goals have priority over individual goals when there is
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23 115 conflict between them (Triandis, McCusker, & Hui, 1990). Thus, when there is chronic
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25 116 victimization perpetrated by a number of pupils, classmates often perceive the situation as
26
27 117 resulting from the victim's faulty behavior, or maladjustment.

30 118 **Participant roles**

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33 119 Salmivalli, Lagerspetz, Björkqvist, Österman, and Kaukiainen (1996) first identified six roles
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35 120 taken by Finnish adolescents during episodes of peer victimization, known as Participant
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37 121 Roles: *Ringleader* (who starts the attacks or bullying); *Assistant* (who joins in the attacks);
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39 122 *Reinforcer* (who encourages the attacks); *Defender* (who supports the victim); *Victim* (the
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41 123 target of their aggression); *Outsider* (who avoids these situations and does not get involved).
42
43 124 The role of *victim* has been further divided into *Passive victim* (who does not provoke others)
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45 125 and *Provocative victim* (who tends to attack or provoke others as well as being victimized by
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47 126 peers) (Olweus, 1993).

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50 127 These roles were later identified in seven to 11 year olds in England, by Sutton and
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52 128 Smith (1999); and the Salmivalli Participant Role Scale has now been used in many western
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54 129 countries with school age children. However, research with younger participants aged four to
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56 130 six years found that fewer of these roles were identifiable. Monks, Smith and Swettenham

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4 131 (2003) found that using pupil and teacher nominations, only the roles of Aggressor (a
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6 132 combination of Ringleader, Assistant and Reinforcer), Victim and Defender were identified
7
8 133 with any inter-rater concordance and reliability. Monks and Smith (2010) compared peer-
9
10 134 nomination data from five and eight year olds; they found that the five year olds were able to
11
12 135 report on aggressive behavior and that these nominations showed some reliability over a test-
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14 136 retest interval of one week; furthermore, children within the class tended to agree on who was
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16 137 aggressive within their peer group. However, the five year olds were less able to provide
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18 138 reliable and agreed on reports for other participant roles. In contrast, the eight year olds were
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20 139 able to provide reliable and more generally agreed on peer-nominations for all of the
21
22 140 participant roles taken in bullying.
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26 141 **Defender role**

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28 142 Defending has been investigated in terms of helping the victim directly, by consoling or
29
30 143 intervening in the aggressive behavior, or indirectly, by reporting the aggressive episode to
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32 144 adults (Caravita, Di Blasio, & Salmivalli, 2009; Salmivalli et al., 1996). Studies in western
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34 145 cultures generally find that children who defend victimized children are reported to be
35
36 146 more accepted and popular than children in other roles; this is consistent across ages and
37
38 147 using different nomination methods. Salmivalli et al. (1996) found that peer nominated
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40 148 defenders aged 12-13 were highly accepted, with low scores in rejection. In children aged
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42 149 eight to 10 years, Caravita et al. (2009) found that defenders were socially preferred by
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44 150 their peers but also perceived as popular. At four to six years, Monks et al. (2003) found
45
46 151 that self-nominated defenders tended to be more accepted than non-defenders or
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48 152 aggressors; and Monks, Palermi, Ortega, and Costabile (2011) found that teacher-
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50 153 nominated defenders in preschool were also more preferred than non-defenders.
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55 154 **Characteristics of roles**

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57 155 *Stability over time*: participant roles tend to be stable, with the degree of stability over time
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4 156 generally increasing with age (Smith, 2014). Stability over time also varies depending on
5
6 157 the informant, the type of aggression, and the time interval between assessments. Short-
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8 158 term stability over time can be taken as a measure of reliability.

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11 159 In young children, stability over time has been examined over one week (Monks &
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13 160 Smith, 2010), one month (Crick, Casas, & Ku, 1999), four months (Monks et al., 2003),
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15 161 five months (Kochenderfer & Ladd, 1996) and 18 months (Crick et al., 2006). For example,
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17 162 Monks et al. (2003) investigated four month stability over time of participant roles in four
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19 163 to six year old children; they found that peer-reported stabilities were high for aggressor (r
20
21 164 = .78), moderate for defender (r = .38) and low for victim: (r = .19, not significant). The
22
23 165 low stability over time for victim may be due to aggressive behavior at this age being less
24
25 166 targeted to a particular child, as stability over time of the victim role increases considerably
26
27 167 by middle childhood and adolescence (Sapouna et al., 2012; Smith, 2014).

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30 168 Stability over time of victimization and aggression may also differ by type of
31
32 169 aggression, and informant. Crick et al. (1999) found that teacher-reported stability over
33
34 170 time of relational victimization (r = .63) was higher than for physical victimization (r = .37).
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36 171 Crick et al. (2006) found that using observational data, relational aggression was stable for
37
38 172 girls (r = .39) whereas physical aggression was not stable for either sex; whereas by
39
40 173 teacher-report, neither physical nor relational aggression were stable.

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43 174 *Inter-rater concordance between informants:* roles can be nominated by self, peers, and
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45 175 teachers; each method has advantages and disadvantages for research with younger
46
47 176 children (Vlachou et al., 2011). Peer reports are useful as children are most aware of their
48
49 177 peer relationships and notice aggressive behavior or victimization even in unsupervised
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51 178 contexts (Ladd & Kochenderfer-Ladd, 2002); also, obtaining as many as 20 to 30 pupils'
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53 179 opinions of each child participating in the study increases the reliability of the measure
54
55 180 (Salmivalli, 1998). However, young children's lack of skills for monitoring, encoding and
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181 recalling the victimization event may reduce reliability, especially for more indirect forms
182 of aggression such as excluding and rumor spreading (Ladd & Kochenderfer-Ladd, 2002).

183 Self reports may be useful for examining victim experiences because children are
184 very sensitive to negative treatment, especially of more subtle forms of victimization such
185 as gossiping, or excluding, of which peers and teachers may not be aware (Ladd &
186 Kochenderfer-Ladd, 2002). However, children may overestimate their victim experience
187 and underestimate their aggressor experience due to social desirability (Monks et al., 2003).

188 Teacher reports have been advocated as providing relatively reliable data for
189 younger children (Vlachou et al., 2011). Juliano, Werner, and Cassidy (2006) reported a
190 significant correlation for physical aggression between teachers and observers, however the
191 agreement was not significant for relational aggression; teachers may not be aware of all
192 situations where victimization has taken place, and may be less aware of relational and
193 indirect aggression.

194 Ladd and Kochenderfer-Ladd (2002) recommended using multiple informants to
195 investigate preschoolers' aggression, as a multi-informant composite measure yielded
196 better estimates of relational adjustment than any single-informant measure.

197 *Discriminability:* different roles are only meaningful if they can be discriminated;
198 especially at younger ages, some roles are perceived in similar ways, as shown by inter-
199 correlations between them. Monks and Smith (2010) reported high correlations (around
200 0.8) between aggressor and provocative victim in 5 year olds; with lower correlations
201 amongst other roles.

202 *Relations between aggressor and victim roles by type of aggression:* the high correlation
203 between aggressor and provocative victim may interact with the type of aggression; for
204 example, an aggressor using one type of aggression may be a victim of another type of
205 aggression. Ostrov (2008) evaluated aggression and victimization of preschool children

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206 and found that observed aggression was associated with teacher-reported victimization
207 both in physical and relational aggression.

208 **Relations with participant roles**

209 *Sex:* generally, and including studies with younger children, boys are more often identified
210 as being aggressors, bullies or bully/victims than girls (Monks et al, 2003; Ostrov &
211 Keating, 2004; Monks & Smith, 2010; Vlachou et al., 2011). While boys have been
212 characterized as consistently more physically aggressive than girls, there have been less
213 consistent sex differences in relational aggression. Some studies indicated that girls are
214 more aggressive than boys in relational aggression, other studies showed that they are not
215 as aggressive as boys, or if girls are aggressive, they are more likely to use relational or
216 indirect aggression than overt or direct forms (Archer, 2004; Card, Stucky, Sawalani, &
217 Little, 2008; Olweus, 2010; Scheithauer, Hayer, Petermann, & Jugert, 2006; Smith, 2014).
218 Girls are more likely to be defenders (Monks & Smith, 2010; Vlachou et al., 2011). Studies
219 generally report no significant differences in self-reported victim role between boys and
220 girls aged four to five years (Monks et al., 2003; Vlachou et al, 2011).

221 *Likeability:* at least up to adolescence, children who attack or bully others tend to be
222 disliked, and victims often have lower social status than non-involved children (Olweus,
223 2010; Smith, 2014). Veenstra, Verlinden, Huitsing, Verhulst, and Tiemeier (2013)
224 investigated peer rejection and acceptance among eight year old children, and found that
225 bullies tended to be rejected by children of the same sex as those who experienced their
226 bullying, regardless of the bully's sex. Furthermore, girls who were bullied by girls showed
227 low acceptance by girls; but boys bullied by boys did not show low acceptance by boys.
228 However, Monks et al. (2003) found the victim role to be not significantly related to peer
229 acceptance or rejection among children four to six years.

230 Defenders may be seen as liked, or popular. Veenstra et al. (2013) found that at eight

231 years, defenders who helped other-sex victims were more accepted than same-sex defenders.
232 However, unlike the roles of bully and victim in older children, the defender role has
233 generally been considered as unitary. An exception to this is the study by Belacchi and
234 Farina (2010; 2012), who initially assessed three different defender roles: *Defender*
235 (someone who defends a child being beaten or teased by directly blocking a bully or
236 telling/reporting the episode to adult) *Consoler* (someone who consoles or encourages the
237 victimized child), and *Mediator* (someone who tells teachers/adults of bullying, tries to make
238 peace between the bully and victim). However they collapsed these into one composite role
239 (which they called prosocial) in their analyses.

240 Altogether, little is known about young children's peer status by different types of
241 defending or aggressive behavior. We aimed to assess whether it was useful to discriminate
242 between two types of defender. One, which we call defender-stop, directly confronts the
243 aggressor, perhaps saying 'Don't do that', 'Stop it!'. The other, which we call defender-tell,
244 seeks help from others, usually adults, perhaps reporting an aggressive episode to a teacher.
245 These two defender roles might be differentially related to likeability by peers. A defender
246 who directly intervenes against aggressors may be more popular than a defender who asks
247 for help from others, since directly confronting the aggressor/bully requires more confidence
248 than reporting it to adults.

249 **Aims of the current study**

250 Virtually all the studies on peer-victimization in younger children have been carried out in
251 western cultures; there are no studies which investigate the participant roles among young
252 children in a collectivistic culture such as South Korea, examining role stability over time
253 and inter-rater concordance using multiple informants, sex differences, and relations to
254 likeability. Yet, the distinctive nature of South Korean bullying noted in school-age children,
255 with its emphasis on social exclusion, suggests that the findings on participant roles need to

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4 256 be validated in this different cultural context. Also, only a few studies (e.g. Ladd &
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6 257 Kochenderfer-Ladd, 2002; Monks et al, 2003; Monks & Smith, 2010) have investigated the
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8 258 stability over time or inter-rater concordance of young children's aggressive behavior or
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10 259 victimization using multiple methods. In addition, studies have usually focused on
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12 260 aggression or victimization generally, irrespective of the type of aggression involved; but it
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15 261 is important to look at the participant roles by each type of aggression. Finally, a longitudinal
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17 262 design is necessary to assess the stability over time of these nomination measures and give
18
19 263 an indication of how stable young children's aggressive behavior is from different
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22 264 perspectives.

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24 265 Thus, the current study had three major aims, namely to examine:

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26 266 1. The relative frequency of peer, self, and teacher nominations for participant roles
27
28 267 (aggressor, victim, defender-stop and defender-tell), by four different types of aggression,
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30 268 in young children in South Korea
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32
33 269 2. Role characteristics: short-term stability over time between two time points, T1 and T2;
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35 270 inter-rater concordance among peer, self, and teacher nominations; discriminability; and
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37 271 relations between aggressor and victim roles by type of aggression;
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39 272 3. Sex differences in participant roles; and relationships between likeability (like-most/like-
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41
42 273 least) and participant roles

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44 274 A subsidiary aim was to compare the findings with those from western studies.
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46 275 **Method**

47 48 276 **Participants**

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51 277 Three preschools in *Gyung-gi* province (near Seoul) in South Korea participated. Head
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53 278 teachers in each preschool were contacted by telephone and the first author visited the
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55 279 schools. All the preschools were from lower-middle class areas. 95 children (45 boys, 50
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57 280 girls) from four classes of the preschools (class 1: n = 21; class 2: n = 17; class 3: n = 29;

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4 281 class 4: $n = 28$) and 6 teachers participated. These comprised all the children in each class.
5
6 282 Class 2 and class 4 had two teachers, the others had one teacher. Child mean age was 74
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8 283 months ($SD = 4.06$, range = 68 to 88 months) at T1: boys: mean age = 74.84; $SD = 4.50$;
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10 284 girls: mean age = 74.16; $SD = 5.01$). There were no significant sex differences in child age.
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12 285 Only 4.2% ($N = 4$) were from a multiethnic background (Chinese-Korean, Indonesian-
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14 286 Korean) with 95.8% ($N = 90$) being from a mono-ethnic background (South Korean).

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17 287 Each child was interviewed twice, in November 2008 and then in January 2009. In
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19 288 South Korea, six to seven year old children in preschool graduate in February and enter the
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21 289 1st grade of elementary school, thus it was necessary to have both time points before their
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23 290 graduation. Two months was regarded as a reasonable period to examine the stability over
24
25 291 time of young children's aggressive behavior, and facilitated comparison with previous
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27 292 studies (which had intervals of 1 to 5 months).

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29
30 293 Three children left the schools after the first interview, thus 92 children (43 boys, 49
31
32 294 girls) participated at the second. The interview took about 25 minutes for each child. Six
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34 295 teachers who were in charge of the classes were also asked to complete a questionnaire.

35 36 37 296 **Procedure**

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39 297 Peer, self, and teacher nominations were conducted at T1 and T2. The children were
40
41 298 interviewed individually in a quiet room in the preschool. They were shown four cartoons;
42
43 299 each depicted a different type of aggressive situation - physical, verbal, social exclusion, and
44
45 300 rumor spreading. Each cartoon had stick figures to show the roles of aggressor, victim, and
46
47 301 two types of defenders, adapted and extended from those used by Monks et al. (2003). The
48
49 302 child was asked whether they wished to nominate any of their peers, or themselves, as
50
51 303 aggressor, victim and two types of defender (defender-stop/defender-tell) for each cartoon.

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53 304 **Peer nominations.** Each child was shown the four cartoons in turn, and asked,
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55 305 "What is happening here?". Following the child's response, the situation for that cartoon was

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4 306 restated, for example “Yes, this child is hitting that child”. Then the role questions were
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6 307 asked: “Do you have a child who does this in your class?” (aggressor), and if the child said
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8 308 yes, “Who does it?”; they were prompted by asking, “Anyone else?”. Then “Who in your
9
10 309 class is like this person, being hit, kicked or pushed?” (victim), “Do you have anyone in your
11
12 310 class who would stop the child (aggressor) doing that?” “Who would do that?” (defender-
13
14 311 stop), “Do you have anyone in your class who would tell a teacher about it?”, “Who would
15
16 312 do that?” (defender-tell).

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20 313 The number of peers who nominated a child for each role was summed. For
21
22 314 statistical analyses, the scores for aggressor, victim, defender-stop and defender-tell were
23
24 315 standardized across each class.

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26 316 **Self nominations.** After children were asked to nominate their peers in one cartoon,
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28 317 children were also asked about their own behavior: “Do you do this to another child?
29
30 318 (aggressor)”, “Does anyone in your class do that to you?”(victim), “Do you stop the child who
31
32 319 is kicking others?”(defender-stop), “Do you tell the teacher about that child (aggressor)?”
33
34 320 (defender-tell).

35
36
37 321 The scores were coded binomially, with a score of 1 indicating that a child nominated
38
39 322 himself/herself (answered ‘yes’) and a score of 0 indicating a child did not nominate
40
41 323 himself/herself (answered ‘no’).

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43
44 324 **Teacher nominations.** Teachers were given a questionnaire to nominate children. This
45
46 325 described the same four situations as the cartoons (physical aggression, verbal aggression,
47
48 326 social exclusion, and rumor spreading). Teachers were asked to nominate children in their
49
50 327 class for four roles (aggressor, victim, defender-stop and defender-tell) at T1 and T2. The
51
52 328 scores were coded in the same way as self nomination. At T1, teachers reported difficulties
53
54 329 in distinguishing the two types of defenders, and therefore only reported for defender as one
55
56 330 category; but at T2 they were encouraged to report defenders separately by each type as

331 much as they could.

332 **Total role score.** For each of the four roles, the number of times a child was nominated
333 for *any* of the four types of aggression was summed and divided by 4, and called total role
334 score. This was done for peer, self, and teacher nominations, and for each role: aggressor,
335 victim, defender-stop, and defender-tell.

336 **Likeability.** Each child was shown photographs of all the children in their class and a
337 cardboard bus (as in Perren & Alsaker, 2006). Children's photographs were used in three
338 classes; a class list was used in one class since the head teacher did not agree to use
339 children's photographs due to reasons of privacy (however, all children were able to read
340 their classmates' names). Each child was asked to choose three peers whom they would take
341 on the bus trip (like-most) and three whom they would not take with them (like-least): "We
342 are going to go on a bus trip now, could you choose the three children whom you most want
343 to take with you?"; and "Could you choose the three children whom you do not want to
344 take?". Likeability was investigated twice, at T1 and T2. The number of peers who
345 nominated a child as like-most peer were summed and standardized across each class. Like-
346 least score was calculated in the same way. The standardized scores were used in all analyses.

347 **Ethical issues and consent**

348 Verbal consent was obtained from the head-teachers and class teachers involved. Teachers
349 were shown the assessments and told the procedure by the first author and agreed children's
350 participation. Parents' consent was not required; in South Korea, it is widely accepted
351 between teachers and parents that a teacher can decide children's participation to the extent
352 that this does not affect their curriculum. In addition children were asked if they would be
353 willing to take part, looking at some pictures and answering questions on how they got on
354 with classmates. They were told that what they said would be confidential. Should any child
355 be distressed at any point, an arrangement was in place (agreed with each preschool) of

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4 356 offering to take them to a teacher; however, this did not happen. The teachers whose children
5
6 357 participated were given general feedback regarding the findings.
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8 358 **Statistical analysis**

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10 359 We used scores for participant role nominations using correlations and kappa coefficients as
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12 360 appropriate (rather than categorizing children or assigning them to a particular role). For the
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14 361 score of role nominations, the frequency of nomination which each child received in each
15
16 362 role was used: aggressor, victim, defender-stop and defender-tell (thus children were not
17
18 363 assigned the particular role), For aim 3, t-tests were used to examine sex differences in
19
20 364 participant roles and linear multiple regression was used to examine relations between
21
22 365 participant roles and likeability, with likeability as the outcome, and scores on the four
23
24 366 participant roles as predictors (following Cillessen and Mayeux, 2004). Since multiple t-tests
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26 367 were conducted, we emphasize findings consistent at both T1 and T2.
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30 368 **Results**

31 369 **The relative frequency of peer, self, and teacher nominations for participant roles, by** 32 33 370 **different types of aggression**

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37 371 The average percentage of nominations received for being an aggressor, victim, defender-
38
39 372 stop and defender-tell by type of aggression, and by type of report (peer, self, and teacher)
40
41 373 are shown in Table 1. Percentage of nominations by peers was calculated for each class as
42
43 374 $[\text{sum of all nominations}] \times 100 / [N \times (N-1)]$, where N is the number of children in that class,
44
45 375 $N \times (N-1)$ indicates the number of possible nominations which children can receive from
46
47 376 their classmates (e.g. if children belong to a class consisting of 30 children (including
48
49 377 him/herself) they can receive up to $30 \times 29 = 870$ nominations). Then the percentages were
50
51 378 averaged across the 4 classes. In all ten possible comparisons, children reported their peers
52
53 379 more in aggressor than other roles. Also, all eight defender-stop and defender-tell
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55 380 nominations for direct (physical and verbal) aggression were higher than the eight for
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4 381 relational (social exclusion and rumor spreading) aggression. In self nominations, children
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6 382 consistently nominated themselves less as aggressor, than as victim or defender-
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8 383 stop/defender-tell, with the greatest difference between victim and aggressor nominations for
9
10 384 social exclusion. Teachers reported children at a similar rate across the four roles as peer or
11
12 385 self nomination. However, they sometimes reported more children as defender or defender-
13
14 386 tell than as aggressor or victim.

15
16
17 387 Table 1 about here

18 19 388 **Role characteristics**

20 21 389 **Short term stability over time of peer, self, and teacher nominations between T1** 22 23 390 **and T2**

24
25 391 Table 2 shows correlation coefficients for the standardized nomination scores for aggressor,
26
27 392 victim, defender-stop and defender-tell by type of aggression and by type of nominations
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29 393 between T1 and T2.

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31
32 394 Table 2 about here

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34 395 All the total scores of peer nominations were stable. Nominations for aggressor were
35
36 396 most stable in all types of aggression; nominations for victim and nominations for
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38 397 defender-stop and defender-tell were only sometimes stable.

39
40 398 All the total scores of self nominations were stable. Nomination for aggressor was
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42 399 stable for all types of aggression except social exclusion; nominations for victim were
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44 400 stable for all types; nominations for defender-stop and defender-tell were not consistently
45
46 401 stable.

47
48 402 For teacher nominations, nomination for aggressor was stable for all types of
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50 403 aggression; nomination for victim and nomination for defender (only calculated for
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52 404 composite score) were not consistently stable.

53 54 405 **Inter-rater concordance among informants**

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4 406 Cohen's Kappa was calculated between peer/self, peer/teacher, self/teacher for each role
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6 407 (aggressor, victim, defender-stop, defender-tell), by type of aggression, at T1 and T2. Table
7
8 408 3 shows kappa values for aggressor and victim by type of aggression. Nominations for
9
10 409 aggressor showed significant agreements among peer, self, and teacher in total score for
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12 410 aggression, and for physical and verbal aggression. Nominations for victims tended to
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14 411 show low agreement across the four types of aggression, with no significant agreement for
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16 412 social exclusion.

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20 413 Table 3 about here

21 414 **Discriminability**

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23
24 415 Table 4 shows inter-correlations amongst the four total role scores, at T1 and T2, for peer,
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26 416 self and teacher nominations. For peer nominations, defender-tell was positively related to
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28 417 aggressor (T1), victim (T2), and defender-stop (T1, T2). For self nominations, victim was
29
30 418 positively related to aggressor (T1), defender-stop (T1, T2), and defender-tell (T1/T2).
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32 419 Defender-tell was positively related to defender-stop (T2). For teacher nominations, victim
33
34 420 was positively correlated to aggressor.

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36
37 421 Table 4 about here

38 422 **Relations between aggressor and victim roles by type of aggression**

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40 423 Analyses were carried out at both T1 and T2. Correlations between peer nominations for the
41
42 424 four types of aggressor (physical, verbal aggression, exclusion, rumor spreading) and four
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44 425 types of victim (physical, verbal aggression, exclusion, rumor spreading) were examined.
45
46 426 None were significant. For self and teacher nominations, chi square analyses were conducted
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48 427 for the four types of aggressor and four types of victim. Children who nominated themselves
49
50 428 as aggressor in physical aggression were more likely than children who did not, to nominate
51
52 429 themselves as a victim of social exclusion, $\chi^2(1) = 4.91, p < .05$, at T1 and a victim in rumor
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54 430 spreading, $\chi^2(1) = 7.221, p < .01$ at T1. Children who were nominated by teachers as

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4 431 aggressor in physical aggression were more likely than children who were not, to be
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6 432 nominated themselves as a victim of social exclusion, $\chi^2(1) = 8.39, p < .05$, at T1. Also,
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8 433 children who were nominated by teachers as aggressor in verbal aggression were more likely
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10 434 than children who were not, to be nominated as a victim of rumor spreading, $\chi^2(1) = 17.05$,
11
12 435 $p < .001$, at T1, and $\chi^2(1) = 16.06, p < .001$, at T2.

15 436 **Role relations with sex and likeability**

17 437 **Sex.** Individual t-tests were conducted for peer nomination scores for each role. We
18
19 438 looked for differences consistent at both T1 and T2. There were no significant differences for
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21 439 victim. Some significant differences were found for the other roles. For aggressor, boys
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23 440 received more nominations than girls for physical aggression ($t(65) = 3.53, p < .01$ at T1;
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25 441 $t(73) = 3.10, p < .01$ at T2), and verbal aggression ($t(65) = 2.22, p < .05$ at T1, $t(73) = 2.01, p$
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27 442 $< .05$ at T2). For defender-stop, girls received more nominations than boys in total score of
28
29 443 aggression ($t(76) = -4.07, p < .001$ at T1; $t(79) = -2.86, p < .01$ at T2) and physical
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31 444 aggression ($t(72) = -3.62, p < .01$ at T1, $t(80) = -2.40, p < .05$ at T2). For defender-tell, girls
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33 445 received more nominations than boys in total score of aggression ($t(93) = -3.24, p < .01$ at
34
35 446 T1; $t(80) = -2.79, p < .01$ at T2), physical aggression ($t(78) = -2.46, p < .05$ at T1; $t(72) = -$
36
37 447 $3.05, p < .01$ at T2), and verbal aggression ($t(83) = -2.53, p < .05$ at T1; $t(79) = -2.23, p < .05$
38
39 448 at T2).

44 449 **Likeability**

46 450 Separate multiple regressions were performed for the four types of aggression and total
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48 451 score of aggression. Models using self nomination and teacher nomination scores with
49
50 452 likeability were not significant for any type of aggression. Table 5 indicates the peer
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52 453 nomination scores (aggressor, victim, defender-stop, defender-tell) which predicted like-most
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54 454 /like-least scores.

57 455 Table 5 about here

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4 456 For like-most scores, only two beta coefficients were significant: nomination for
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6 457 defender-stop was a significant predictor of like-most for total score of aggression and for
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8 458 verbal aggression.

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11 459 For like-least scores, all the beta coefficients were strongly significant for aggressor:
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13 460 the more nominations for any type of aggressor that a child had, the more disliked they were
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15 461 by peers. There were no significant coefficients for victim. Four other coefficients were
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17 462 significant; one negative for defender-stop, for total score of aggression (T2); and three
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19 463 positive for defender-tell, for physical aggression (T2), rumor spreading (T2) and total score
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21 464 of aggression (T2). Unlike for defender-stop, the child who tells teachers about the
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23 465 aggressor's behavior was not liked by other children.

24 25 26 466 **Discussion**

27
28 467 Our first aim was to examine the relative frequency with which roles were nominated, for
29
30 468 different types of aggression. Generally, children nominated roles for physical and verbal
31
32 469 types of aggression, more than relational (social exclusion and rumor spreading; see Table
33
34 470 1) although this was not examined statistically. This finding for younger children in South
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36 471 Korea contrasts with findings in some western studies, where relational aggression is quite
37
38 472 frequently nominated (Monks et al., 2010), an issue we return to later.

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41 473 Similar to western studies (Monks et al., 2003; Monks et al., 2005), trends in the
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43 474 data indicated that young children in South Korea tended to nominate their peers more as
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45 475 aggressors than for other roles, and themselves more as victims than for other roles.
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47 476 Children may be less comfortable admitting that they behave aggressively; exhibiting a
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49 477 social desirability bias (Monks et al., 2003).

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51
52 478 Nominations for defender-stop and defender-tell were particularly low for
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54 479 relational aggression (social exclusion and rumor spreading). It may be that defending for
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56 480 relational aggression would be more difficult than for physical or verbal aggression, due to

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4 481 the difficulty of knowing who started the rumor or that exclusion is actually taking place. It
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6 482 may be difficult for a child to identify whether someone is being deliberately excluded or
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8 483 whether it might be more benign.
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11 484 Teachers nominated children in their class at a similar rate among the four roles
12
13 485 but aggressor and defender tended to be more highly reported than victim in physical,
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15 486 verbal aggression and social exclusion. This finding is similar to Monks et al. (2003).
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17 487 However, for teachers in this study, nominating children as victims or defenders seemed to
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19 488 be more difficult than nominating aggressors. This may reflect teachers' concerns with
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21 489 classroom management and that those children who are aggressive or disruptive will more
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23 490 often attract the teacher's attention (Monks et al., 2011).
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26 491 The second aim was to examine characteristics of roles in terms of stability over
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28 492 time, inter-rater concordance among informants, discriminability and the relationship
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30 493 between aggression and victimization. Nominations for aggressor were stable regardless of
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32 494 informant which supports previous research in western samples (e.g. Monks et al., 2003).
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34 495 Moderate to low stability over time for defender was in accord with previous research, but
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36 496 significant stability of the victim role found in the current study was not in accord with the
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38 497 findings of Monks et al. (2003). This may have partly resulted from different time intervals
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40 498 in the two studies (4 months in Monks et al. vs. 2 months in the current study).
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44 499 For inter-rater concordance, there was some agreement across all informants on the
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46 500 total score of aggression as regards aggressors, but this was noticeably less for victims.
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48 501 These associations were low in magnitude. Nominations for aggressor were most
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50 502 consistent for physical and verbal aggression. Agreement tended to be highest between
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52 503 peer and teacher and lowest between peer and self which is broadly consistent with
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54 504 findings in western cultures (Ladd & Kochenderfer-Ladd, 2002; Monks et al., 2003). The
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56 505 victim role did have some lower levels of inter-rater concordance in this study, consistent
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4 506 with Monks et al. (2003). Low to moderate correlations among the roles in the current
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6 507 study may indicate that the roles are distinguished efficiently among young children.
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8 508 Previous research (Monks et al., 2010) showed similar or slightly higher correlations.

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10 509 Stability over time of roles (Table 2) and some informant inter-rater concordance
11
12 510 (Table 3), together with the low inter-correlations amongst the roles (Table 4), suggest that
13
14 511 the roles of aggressor, victim, defender-stop and defender-tell can be usefully assessed and
15
16 512 distinguished at this age. However, given the correlation between victim and defender-stop
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18 513 or defender-tell, discriminating defending roles by self nomination needs further
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20 514 investigation. The findings may indicate that victimized children defend other victimized
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22 515 children, or children may have confused defending themselves with defending others.
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26 516 The third aim was to investigate sex differences in participant roles, and the relation
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28 517 between likeability and role. The findings were consistent with previous research (Monks
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30 518 & Smith, 2010; Vlachou et al., 2011); boys were more aggressive physically and verbally
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32 519 than girls, but with no sex differences in relational aggression. There were no sex
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34 520 differences in victim roles. Sex differences in defending were as predicted (Vlachou et al.,
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36 521 2011), with girls being more likely than boys to be identified as both types of defender.
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39 522 Regarding likeability, peer nominations produced distinctly different role profiles.
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41 523 Aggressors did not differ in terms of like-most nominations, but received significantly
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43 524 more like-least nominations. This is consistent with western findings (Monks et al., 2003;
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45 525 Salmivalli et al., 1996). Victims showed no significant association with either like-most or
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47 526 like-least nominations. This is also similar to studies in western countries (Monks et al.,
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49 527 2003), and may reflect that victim is a transient role at this age. Although these findings are
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51 528 consistent with previous research, it is important to bear in mind that many other variables
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53 529 may also impact on likeability scores. It was also not possible to examine the direction of
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55 530 this relationship.
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4 531 Children nominated for defender-stop tended to be sociometrically popular (high
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6 532 like-most, low like-least); whereas children nominated for defender-tell were not popular,
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8 533 and tended to be disliked (although not as much as aggressors). This suggests that children
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10 534 distinguish these two types of defender even at a young age. Previous research in western
11
12 535 cultures on defenders has suggested links to popularity (Caravita et al., 2009; Monks et al.,
13
14 536 2003; Salmivalli et al., 1996), but did not distinguish the two types of defender. Defender-
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16 537 stop children may be popular because of their actions; or it is possible that more popular
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18 538 children feel that they have a level of 'protection' due to their popularity which means that
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20 539 they can behave in this confrontational way without fear of retaliation, whereas less
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22 540 popular children may feel that their safest (and perhaps only) recourse if they want to help
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24 541 is to go and tell an adult what is happening (Caravita et al., 2009).

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28 542 Overall, many of our findings parallel those in western studies, but in considering
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30 543 differences we focus on social exclusion. The difference between self nominations for
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32 544 aggressor and for victim was largest for social exclusion. Children appear to be less
33
34 545 sensitive about their excluding behavior to others and more sensitive about being excluded
35
36 546 by others. Furthermore, in terms of inter-rater concordance, nominations for social
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38 547 exclusion showed the lowest agreement of all forms of aggression. Different perceptions of
39
40 548 social exclusion can also be seen in the relationship between aggression and victimization.
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42 549 Physically or verbally aggressive children were more likely than other children to be
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44 550 victims of relational aggression (exclusion, rumor spreading), consistent with some
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46 551 previous studies (Crick et al., 1999, 2006).

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50 552 These findings suggest that judging excluding others or being excluded is
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52 553 especially dependent on the rater's perspective. It is possible that children who exclude
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54 554 others may not always view it as victimization as they feel that they have a valid reason for
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56 555 not allowing someone to join in, whereas the child who is not allowed to join in may still
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4 556 view this as victimization.

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6 557 As also found in western studies, agreement among informants for physical and
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8 558 verbal aggression was higher when nominating aggressors than for other roles (Vlachou et
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10 559 al., 2011). In this study aggressor was mostly nominated in terms of physical and verbal
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12 560 aggression followed by relational aggression (i.e. social exclusion and rumor spreading)
13
14 561 which contrasted with western findings. In English samples, peer nominated aggressor in
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16 562 social exclusion was nominated at similar levels to physical and verbal aggression (Monks
17
18 563 & Smith, 2010; Monks et al., 2005), whereas rumor spreading was least commonly
19
20 564 reported. English children reported exclusion at a high level, whereas this was not the case
21
22 565 among South Korean children. It may be that there are actually higher rates of social
23
24 566 exclusion among English children. However an alternative possibility relates to how social
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26 567 exclusion is regarded. English children may more readily regard social exclusion as wrong,
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28 568 or as a bullying-like behavior. Given the nature of *wang-ta* and the finding that blame is
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30 569 sometimes attached to the victim (Lee et al., 2012), social exclusion may be regarded more
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32 570 positively in South Korea than in England where it is more often viewed as victimization .
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36
37 571 A limitation of the current study was that the sample size was small in view of the
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39 572 number of comparisons made, increasing the possibility of type 1 errors being made. The
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41 573 use of multivariate analysis was considered. However, this was not appropriate as the
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43 574 assumption of homogeneity of covariance was not met. The use of Bonferroni's Correction
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45 575 was also inappropriate as the corrected p-value was too conservative ($p < .001$) to explore
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47 576 the pattern of sex differences in the participant roles. Therefore, although multiple
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49 577 comparisons were made in this study, we were cautious when interpreting the results,
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51 578 paying attention to those findings which were consistently significant across both time
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53 579 points.
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57 580 Cross-cultural investigation is necessary to confirm whether the different findings
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4 581 related to social exclusion are linked to South Korea's collectivistic character. Although
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6 582 children were unlikely to admit to being an aggressor themselves, particularly in the case
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8 583 of social exclusion, it is not known whether this is a cultural characteristic or a
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10 584 characteristic of social excluding behavior.

11
12 585 In conclusion, aggressive behavior is viewed differently in relation to its various
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14 586 forms and by different informants. Future research should examine exclusion among
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16 587 younger children in South Korea to consider whether this may develop into *wang-ta* later
17
18 588 in childhood. The findings also suggest that the distinction of two types of defenders is
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20 589 important in future participant role research in peer victimization.
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57
58
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60

590 References

591 Archer, J. (2004). Sex differences in aggression in real-world settings: A meta-analytic
592 review. *Review of General Psychology*, 8, 291-322. doi: 10.1037/1089-2680.8.4.291

593 Archer, J., & Coyne, S. M. (2005). An integrated review of indirect, relational, and social
594 aggression. *Personality and Social Psychology Review*, 9, 212-230. doi:
595 10.1207/s15327957pspr0903_2

596 Belacchi, C. & Farina, E. (2010). Prosocial/hostile roles and emotion comprehension in
597 preschoolers. *Aggressive Behavior*, 36, 371-389. doi: 10.1002/ab.20361

598 Belacchi, C. & Farina, E. (2012). Feeling and thinking of others: affective and cognitive
599 empathy and emotion comprehension in prosocial/hostile preschoolers. *Aggressive*
600 *Behavior*, 38, 150-165. doi: 10.1002/ab.21415

601 Bonica, C., Arnold, D. H., Fisher, P. H., Zeljo, A., & Yershova, K. (2003). Relational
602 aggression, relational victimization, and language development in preschoolers. *Social*
603 *Development*, 12, 551-562. doi: 10.1111/1467-9507.00248

604 Björkqvist, K. (2001). Different names, same issue. *Social Development*, 10, 272-274. doi:
605 [10.1111/1467-9507.00164](https://doi.org/10.1111/1467-9507.00164)

606 Caravita, C. S., Di Blasio, P., & Salmivalli, C. (2009). Unique and interactive effects of
607 empathy and social status on involvement in bullying. *Social Development*, 18, 140-
608 163. doi: 10.1111/j.1467-9507.2008.00465.x

609 Card, N. A., Stucky, B. D., Sawalani, G. M., & Little, T. D. (2008). Direct and indirect
610 aggression during childhood and adolescence: A meta-analytic review of gender
611 differences, intercorrelations, and relations to maladjustment. *Child Development*, 79,
612 1185-1229. doi: 10.1111/j.1467-8624.2008.01184.x

613

614

- 1
2
3
4 615 Cillessen, A. H. N. & Mayeux, L. (2004). From censure to reinforcement: Developmental
5
6 616 changes in the association between aggression and social status. *Child Development*,
7
8 617 75, 147-163. doi: 10.1111/j.1467-8624.2004.00660.x
9
10
11 618 Crick, N. R., Casas, J. E., & Ku, H. (1999). Relational and physical forms of peer
12
13 619 victimization in preschool. *Developmental Psychology*, 35, 376-385. doi:
14
15 620 [10.1037/0012-1649.35.2.376](https://doi.org/10.1037/0012-1649.35.2.376)
16
17 621 Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social
18
19 622 psychological adjustment. *Child Development*, 66, 710-722. doi: 10.1111/j.1467-
20
21 623 8624.1995.tb00900.x
22
23
24 624 Crick, N. R., Ostrov, J. M., Birr, J. E., Jansen-Yeh, E. A., Cullerton-Sen, C., & Ralston, P.
25
26 625 (2006). A longitudinal study of relational and physical aggression in preschool. *Journal*
27
28 626 *of Applied Developmental Psychology*, 27, 254-268. doi: 10.1016/j.appdev.2006.02.006
29
30
31 627 Hofstede, G., & Hofstede, G. (2005). *Cultures and organizations: Software of the mind*.
32
33 628 (2nd ed.). London: McGraw-Hill.
34
35 629 Juliano, M., Werner, R. S., & Cassidy, K. W. (2006). Early correlates of preschool
36
37 630 aggressive behavior according to type of aggression and measurement. *Journal of*
38
39 631 *Applied Developmental Psychology*, 27, 395-410. doi: 10.1016/j.appdev.2006.06.008
40
41
42 632 Kirves, L. & Sajaniemi, N. (2012). Bullying in early educational settings. *Early Child*
43
44 633 *Development and Care*, 182, 383-400. doi: 10.1080/03004430.2011.646724
45
46 634 Kim, Y. S., Boyce, W. T, Koh Y. J, & Leventhal, B. L. (2009). Time trends, trajectories
47
48 635 and demographic predictors of bullying: a prospective study in Korean adolescents.
49
50 636 *Journal of Adolescent Health*, 45, 360-367. doi: 10.1016/j.jadohealth.2009.02.005.
51
52
53 637

- 1
2
3
4 638 Kim, Y. S, Koh, Y. J, & Leventhal, B. L. (2004). Prevalence of school bullying in Korean
5
6 639 middle school students. *Archives of Pediatrics & Adolescence Medicine*, 158, 737-741.
7
8 640 doi: 10.1001/archpedi.158.8.737.
9
10
11 641 Kochenderfer, B. J., & Ladd, G. W. (1996). Peer victimization: Cause or consequence of
12
13 642 children's school adjustment difficulties? *Child Development*, 67, 1305-1317.
14
15 643 doi: 10.1111/j.1467-8624.1996.tb01797.x
16
17
18 644 Koo, H. (2005). *The Nature of School Bullying in South Korea*. Unpublished Ph.D Thesis,
19
20 645 Goldsmiths, University of London.
21
22 646 Koo, H., Kwak, K. & Smith, P. K. (2008). Victimization in Korean schools: The nature,
23
24 647 incidence and distinctive features of Korean bullying or wang-ta. *Journal of School*
25
26 648 *Violence*, 7, 119-139. doi: [10.1080/15388220801974084](https://doi.org/10.1080/15388220801974084)
27
28
29 649 Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying
30
31 650 in the digital age: A critical review and meta-analysis of cyberbullying research among
32
33 651 youth. *Psychological Bulletin*. 140, 1073-1137. doi: 10.1037/a0035618
34
35
36 652 Ladd, G. W., & Kochenderfer-Ladd, B. (2002). Identifying victims of peer aggression from
37
38 653 early to middle childhood: Analysis of cross-informant data for concordance,
39
40 654 estimation of relational adjustment, prevalence of victimization, and characteristics of
41
42 655 identified victims. *Psychological Assessment*, 14, 74-96.
43
44 656 doi: [10.1037/1040-3590.14.1.74](https://doi.org/10.1037/1040-3590.14.1.74)
45
46
47 657 Lee, C. & Kwak, K. (2000). *학교에서의 집단따돌림: 실태와 특성 [Gipdan-ttadolim*
48
49 658 *at school: An actual condition and characteristics]*. Seoul: Gipmoondang.
50
51
52 659 Lee, S-H., Smith, P. K., & Monks, C. P. (2012). Meaning and usage of a term for bullying-
53
54 660 like phenomena in South Korea: A lifespan perspective. *Journal of Language and*
55
56 661 *Social Psychology*, 31, 342-349. doi: 10.1177/0261927X12446602
57
58
59
60

- 1
2
3
4 662 Monks, C. P., Palermi, A., Ortega, R., & Costabile, A. (2011). A cross-national
5
6 663 comparison of aggressors, victims and defenders in preschools in England, Spain, and
7
8 664 Italy. *Spanish Journal of Psychology*, *13*, 129-140.
9
10 665 doi: 10.5209/rev_SJOP.2011.v14.n1.11
11
12 666 Monks, C. P. & Smith, P. K. (2010). Peer, self and teacher nominations for participant
13
14 667 roles taken in victimisation by five- and eight-year-olds. *Journal of Aggression,*
15
16 668 *Conflict and Peace Research*, *2*, 4-14. doi: 10.5042/jacpr.2010.0532
17
18 669 Monks, C. P., Smith, P. K., & Swettenham, J. (2003). Aggressors, victims and defenders in
19
20 670 preschool: peer-, self-, teacher reports. *Merrill-Palmer Quarterly*, *49*, 453-469. doi:
21
22 671 [10.1353/mpq.2003.0024](https://doi.org/10.1353/mpq.2003.0024)
23
24 672 Olweus, D. (1993) *Bullying at school: What we know and what we can do*. Oxford:
25
26 673 Blackwell.
27
28 674 Olweus, D. (2010). Understanding and researching bullying: Some critical issues. In
29
30 675 Jimerson, S.R., Swearer, S.M. & Espelage, D.L. (Eds.), *Handbook of bullying in*
31
32 676 *schools: An international perspective* (pp.9-33). New York & London: Routledge.
33
34 677 Ostrov, J. M. (2008). Forms of aggression and peer victimization during early childhood: a
35
36 678 short-term longitudinal study. *Journal of Abnormal Child Psychology*, *36*, 311-322.
37
38 679 doi: 10.1007/s10802-007-9179-3
39
40 680 Ostrov, J. M., & Keating, C. F. (2004). Gender differences in preschool aggression during
41
42 681 free play and structured interactions: An observational study. *Social Development*, *13*,
43
44 682 255-277. doi: 10.1111/j.1467-9507.2004.000266.x
45
46 683 Perren, S., & Alsaker, F. D (2006). Social behavior and peer relationships of victims, bully-
47
48 684 victims, and bullies in kindergarten. *Journal of Child Psychology and Psychiatry*, *47*,
49
50 685 45-57. doi: 10.1111/j.1469-7610.2005.01445.x
51
52 686

- 1
2
3
4 687 Salmivalli, C. (1998). Intelligent, attractive, well-behaving, unhappy: The structure of
5
6 688 adolescents' self-concept and its relations to their social behavior. *Journal of Research*
7
8 689 *on Adolescence*, 8, 333-354. doi: 10.1207/s15327795jra0803_3
9
10 690 Salmivalli, C., & Kaukiainen, A. (2004). "Female aggression" revisited: Variable and
11
12 691 person-centered approaches to studying gender differences in different types of
13
14 692 aggression. *Aggressive Behavior*, 30, 258-163. doi: 10.1002/ab.20012
15
16
17 693 Salmivalli, C., Kaukiainen, A. & Lagerspetz, K. (2000). Aggression and sociometric status
18
19 694 among peers: Do gender and type of aggression matter? *Scandinavian Journal of*
20
21 695 *Psychology*, 41, 17-24. doi: 10.1111/1467-9450.00166
22
23
24 696 Salmivalli, C., Lagerspetz, K., Björkqvist, K., Osterman, K., & Kaukiainen, A. (1996).
25
26 697 Bullying as a group process: Participant roles and their relations to social status within
27
28 698 the group. *Aggressive Behavior*, 22, 1-15. doi: 10.1002/(SICI)1098-
29
30 699 2337(1996)22:1<1::AID-AB1>3.0.CO;2-T
31
32
33 700 Sapouna, M., Wolke, D., Vannini, N., Watson, S., Woods, S., Schneider, W., Enz, S. &
34
35 701 Aylett, R. (2012). Individual and social network predictors of the short-term stability of
36
37 702 bullying victimization in the United Kingdom and Germany. *British Journal of*
38
39 703 *Educational Psychology*, 82, 225-240. doi: 10.1111/j.2044-8279.2011.02022.x
40
41
42 704 Scheithauer, H., Hayer, T., Petermann, F., & Jugert, G. (2006). Physical, verbal, and
43
44 705 relational forms of bullying among German students: age trends, gender differences,
45
46 706 and correlates. *Aggressive Behavior*, 32, 261-275. doi: 10.1002/ab.20128
47
48
49 707 Schwartz, D., Farver, J. M., Chang, L., & Lee-Shin, Y. (2002). Victimization in South
50
51 708 Korean children's peer groups. *Journal of Abnormal Child Psychology*, 30, 113-125.
52
53 709 doi: 10.1023/A:1014749131245
54
55 710 Smith, P.K. (2014). *Understanding school bullying: Its nature and prevention strategies*.
56
57 711 London: Sage

- 1
2
3
4 712 Sutton, J., & Smith, P. K. (1999). Bullying as a group process: An adaptation of the
5
6 713 participant role approach. *Aggressive Behavior*, 25, 97–111. doi: 10.1002/(SICI)1098-
7
8 714 2337(1999)25:2<97::AID-AB3>3.0.CO;2-7
9
10 715 Triandis, H. C., McCusker, C., & Hui, C. H. (1990). Multimethod probes of individualism
11
12 716 and collectivism. *Journal of Personality & Social Psychology*, 59, 1006-1020. doi:
13
14 717 [10.1037/0022-3514.59.5.1006](https://doi.org/10.1037/0022-3514.59.5.1006)
15
16
17 718 Veenstra, R., Verlinden, M., Huitsing, G., Verhulst, F. C., & Tiemeier, H. (2013). Behind
18
19 719 bullying and defending: Same-sex and other-sex relations and their associations with
20
21 720 acceptance and rejection. *Aggressive Behavior*, 39, 462-471. doi: 10.1002/ab.21495
22
23
24 721 Vlachou, M., Andreou, E., Botsoglou, K. & Didaskalou, E. (2011). Bully/victim problems
25
26 722 among preschool children: A review of current research evidence. *Educational*
27
28 723 *Psychology Review*, 23, 329-358. doi: 10.1007/s10648-011-9153-z
29
30
31 724
32
33 725
34
35 726
36
37 727
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1 Table 1. Percentage of nominations for being aggressor, victim, defender-stop and defender-
 2 tell by peer, self and teacher at T1 (n=95) and T2 (n=92), for four types of aggression.

Type of Aggression	Nominating Roles	Peer		Self		Teacher	
		T1	T2	T1	T2	T1	T2
Total	Aggressor	4.3	2.9	3.7	1.6	6.6	6.0
	Victim	2.6	1.5	12.9	7.9	4.5	6.3
	Defender-stop	2.3	2.1	9.5	10.6	6.1	4.4
	Defender-tell	2.3	1.8	11.1	9.5		7.3
Physical	Aggressor	5.6	3.3	7.4	5.4	10.5	9.8
	Victim	2.8	1.9	28.4	20.7	7.4	6.5
	Defender-stop	3.3	2.6	23.2	12.0	14.7	8.7
	Defender-tell	3.8	2.2	27.4	17.4		12.0
Verbal	Aggressor	5.4	3.2	8.4	4.3	6.3	8.7
	Victim	2.8	1.3	18.9	16.3	3.2	8.7
	Defender-stop	3.1	2.2	18.9	23.9	8.4	7.6
	Defender-tell	3.0	2.3	25.3	15.2		13.0
Social exclusion	Aggressor	3.3	2.5	1.1	2.2	11.6	8.7
	Victim	2.4	1.4	23.2	13.0	7.4	8.7
	Defender-stop	1.6	1.7	12.6	15.2	11.6	6.5
	Defender-tell	1.4	1.4	14.7	10.9		7.6
Rumor spreading	Aggressor	2.9	2.6	4.2	3.3	5.3	7.6
	Victim	2.6	1.4	11.6	8.7	7.4	9.8
	Defender-stop	1.2	1.8	9.5	13.0	5.3	4.3
	Defender-tell	1.1	1.3	8.4	16.3		6.5

3 *Note.* T1: Time1; T2: Time 2. Teacher nomination for defender at T1: there was no distinction
 4 between defender-stop and defender-tell at T1.

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11 Table 2. Correlations for role nominations between T1(n = 95) and T2 (n = 92).

	Aggressor	Victim	Defender- Stop	Defender- Tell
Peer (Pearson's r)				
Total	.87***	.37***	.44***	.58***
Physical	.69***	.29**	.25*	.48***
Verbal	.84***	-.08	.47***	.49***
Exclusion	.70***	.11	.19	.04
Rumor spreading	.60***	.24**	-.04	.04
Self (ϕ)				
Total	.38***	.34**	.51***	.26*
Physical	.47***	.28**	.44***	.11
Verbal	.50***	.26**	.15	.10
Exclusion	-.02	.24*	.11	.16
Rumor spreading	.26**	.48***	.25*	.22*
Teacher (ϕ)				
Total	.58***	.33**		.18
Physical	.63***	.26*		.31**
Verbal	.78***	-.05		.28**
Exclusion	.26*	.35**		.18
Rumor spreading	.29**	.36**		.07

12 *** p < .001, **p < .01, *p < .05

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16 Table 3. Kappas comparing peer, self, and teacher nominations for aggressor, victim,
 17 defender-stop and defender-tell (n = 92).

	Peer/ Self		Peer/ Teacher		Self / Teacher	
	T1	T2	T1	T2	T1	T2
Total						
Aggressor	.14*	.15**	.28**	.44***	.27**	.45***
Victim	.05	.29**	-.00	.22*	-.03	.26*
Defender-Tell	.07	.12	.07	.14	.07	.16
Defender-Stop	.06	.12		.12		.18
Physical						
Aggressor	.14*	.28***	.35***	.47***	.16	.54***
Victim	.34**	.15	.08	.16*	.13	.07
Defender-Tell	.11	.08	-.14	.14	.13	.36**
Defender-Stop	.03	.35		.18*		.09
Verbal						
Aggressor	.20**	.27***	.18**	.49***	.23*	.29**
Victim	.21*	.16	-.01	.08	.04	-.03
Defender-Tell	-.07	.10	.12	.00	.01	.03
Defender-Stop	-.02	.14		.11		.11
Exclusion						
Aggressor	-.02	.03	.14	.22**	-.02	.17*
Victim	.12	.04	-.01	.05	.03	-.12
Defender-Tell	-.02	.04	.09	.01		.12
Defender-Stop	.13	-.03		-.01	-.024	.29**
Rumor						
Aggressor	.15*	.14**	.02	.24**	.05	.18
Victim	.07	-.07	-.03	.22*	.15	.16
Defender-Tell	.03	.08	.07	.08	.05	.04
Defender-Stop	.08	.03		.06		.03

18 *** p < .001, **p < .01, *p < .05

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21 Table 4. Correlations among total role scores for peer, self and teacher nominations (T1: n=95
 22 / T2: n=92)

	1. Aggressor	2. Victim	3. Defender- stop	4. Defender- tell
Peer				
(Pearson's r)				
1. Aggressor	-			
2. Victim	.06/.07	-		
3. Defender-stop	-.16/.02	.17/.14	-	
4. Defender-tell	.23*/.13	.16/.44**	.43**/.35**	-
Self				
(Spearman's rho)				
1. Aggressor	-			
2. Victim	.30*/.14	-		
3. Defender-stop	.21/.12	.33**/.29**	-	
4. Defender-tell	.15/.00	.34*/.33**	.40/.49**	-
Teacher				
(Spearman's rho)				
1. Aggressor	-			
2. Victim	.25*/.06	-		

23 ** $p < .01$. , * $p < .05$, correlations of teachers reports for defender-stop, defender-tell at T2
 24 were not reported as these two roles were conducted as one 'defender' role at T1.

Table 5. 10 Multiple regression analysis with like-most / like-least as outcome variables and peer nomination (aggressor, victim, defender-stop, defender-tell) as predictors, for each type of aggression.

Type of aggression (predictors)	Adjusted R square	Standardized Beta				
		Aggressor	Victim	Defender-stop	Defender-tell	
Outcome variable: like-most						
Total	T1	.14**	-.21	-.05	.20	.20
	T2	.15**	.00	-.14	.38**	-.11
Physical	T1	.05	-.14	-.04	.14	.09
	T2	.12*	-.09	-.12	.31	-.03
Verbal	T1	.21***	-.16	.02	.39***	.05
	T2	.07	-.02	-.02	.20	-.17
Social exclusion	T1	.04	-.08	-.04	.12	.12
	T2	.06	.08	-.19	.14	.00
Rumor spreading	T1	.05	-.15	-.02	-.01	.18
	T2	.02	.03	.03	.12	-.05
Outcome variable: like-least						
Total	Time1	.54***	.70***	.00	-.10	.05
	Time2	.65***	.75***	.04	-.16*	.19*
Physical	Time1	.49***	.66***	-.06	-.08	.14
	Time2	.56***	.74***	-.06	-.04	.17*
Verbal	Time1	.43***	.60***	.07	-.09	.12
	Time2	.58***	.76***	.08	-.12	.02
Social exclusion	Time1	.31***	.55***	-.07	-.13	-.05
	Time2	.34***	.51***	.19	.01	.08
Rumor spreading	Time1	.49***	.68***	-.02	-.06	-.08
	Time2	.33***	.45***	.10	-.18	.29**

*** $p < .001$, ** $p < .01$, * $p < .05$